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ABSTRACT

The Thai Discourse Analysis Project seeks to provide a description of linguistic structures of importance in understanding the nature of Thai speech. Previous studies have been limited, and restricted to consideration of the written language and "literary" speech. The project consists of three phases: the acquisition of recorded texts, transcription and other preliminary processes, and selection and utilization of representative materials for analysis of linguistic structures and pedagogical application. Tape-recorded speech thus constitutes the principal data source, and native Thai speakers served as informants. A subsidiary phase of the project showed that students of Thai made significant gains in passive language abilities after intensive exposure to taped speech examples. A cassette recorder was used to tape a wide range of Thai, such as formal speeches, official interviewing, media presentations, guided tour commentaries, extemporaneous discussions and conversation. Some findings are briefly indicated, regarding Thai lexical units, modal auxiliaries of the preverbal type, principles organizing placement of noun phrase groups with respect to governing verb phrase units, and phrase/sentence aspects of unit definition. The main part of the paper discusses linking in Thai discourse, from a sociolinguistic view and as related to text environments, reiterative schema and feedback. (CHK)

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FINAL REPORT

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DISCOURSE ANALYSIS OF JAPANESE AND THAI

Part I: Thai Discourse

June 1976

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DISCOURSE ANALYSIS OF THAI AND JAPANESE

Part I: Thai Discourse

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and
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(OEC-0-72-1786)

Cornell University
1976

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1. Introduction

The Thai Discourse Analysis Project seeks to provide a description of linguistic structures of importance in understanding the nature of Thai speech. This goal is particularly relevant to linguistic studies, since previous work in describing Thai linguistic structures has been of a limited and hardly more than preliminary sort, and has been almost entirely restricted to considerations of the written language with its closely associated "literary" speech. Regretably so, particularly in the area of syntax much of the previous work is weakened by too faithful an adherence to particular theories, both to the detriment of theory developments, which needs empirical challenges to progress, and to that of our understanding of the Thai language, which needs much more analytic consideration of even the most basic structural principles.

The Project consists of three phases: the acquisition of recorded texts; transcription and other preliminary processes; selection and utilization of representative materials for analysis of selected linguistic structures and for experimental pedagogical application.

Tape-recorded oral speech thus constitutes the principal data source. In addition, native speakers of Thai served as informants for eliciting data to clarify and solve various problems arising from the recorded corpus samples.

It should be noted at the outset that this methodology departs quite markedly both from the controlled informant interview technique developed and refined from the 1930's onward, and also from more recent attempts to use intuition and introspection as legitimate data sources. These methods are similar to the extent that they both elicit information, in

some cases very valuable, as to what someone thinks he says or would say in such and such circumstances, but the effects of the formal informant interview situation, of the act of introspection, and their relationship to actual speech transactions in daily life are at best confessed as uncontrolled variables present in the data.

To analyze actual speech as it occurs in varied social contexts might appear a self-evident direction for linguistic research. But this has not been so. Partially because of too precipitous acceptance of the Saussurean "langue/parole" dichotomy, partially from technological considerations, but mostly because alternative methods seemed easier and apparently more efficient, direct confrontation with speech as it occurs in actual transactions has been largely avoided. This is not to minimize insights based on that avoidance; it is merely to assign them to a particular level, in most cases that of careful, 'guarded' speech with the potential of significant influence by "literary" models and/or formal education. That these insights will automatically be applicable to other levels on the linguistic spectrum is a proposition that should carry with it the burden of proof. In fact certain principles do appear to be more general than others. To distinguish such 'core' principles from variable ones is a corollary purpose of the Project.

In addition to theoretical clarifications, the study of speech in its transactional contexts has important practical consequences. For one learning Thai, for example, as a foreign language exposure to only a decontextualized 'idealized' form of speech in the learning situation has well-attested predictable results: once such a learner is surrounded by the actual facts of language use, while he can typically make himself understood at a basic level in the 'idealized' medium, native speakers surrounding him carry on in a rather different one, at first nearly

incomprehensible.

Could this situation be alleviated by a calculated pedagogical effort? To test this, a subsidiary phase of the Project exposed students of Thai to carefully graded segments of speech from the recorded corpus. Study aids were provided, and particular attention was given to evaluating progress. Evaluation was conducted formally on the basis of corpus materials and informally, and perhaps more significantly, by observation of students' ability to cope with actual Thai speech transactions. It was possible to make some relevant observations of students in Thailand after completion of the experimental course. After intensive, guided, exposure to approximately 40 hours of speech over a year's period it was concluded that significant gains in passive language abilities had been achieved.

Direct active control of speech segments from the corpus was not a goal, even were it a pedagogical possibility. In many cases such direct productive ability would have caused more problems for the student in an actual transactional context than it would have solved; indeed, there was occasionally the reverse problem of discouraging a student from 'picking up' various speech forms from taped materials which, were he to utter them in a normal Thai context, would cause negative reactions of which he was unaware.

However certain less direct contributions to active productive ability were possible. Vocabulary items deemed appropriate were reviewed and used in classroom discussions. Certain formal characteristics of Thai conversation were also studied actively. An analytical listing of 200 Thai expressions used to link and modify discourse flow was compiled and keyed to transcripts of taped materials familiar to the students. They could then study how these expressions had functioned in a variety

of specific contexts in actual discourses, be guided to generalizations, and be encouraged to use the items appropriately in their own Thai speech. To help reinforce the process, drills were developed using a 'pattern dialogue' system, in which content varied while transactional context features remained constant, mostly the function of the linking and modifying items. The result was increased awareness of sociolinguistic dimensions in discourse, as well as improvement in conversational fluency.

One problem must be mentioned in the preparation of pedagogical materials from certain types of taped speech. The closer to uninhibited spontaneous colloquial speech one approaches, typically the more extraneous 'noise' one must record along with the speech. To some extent it is justifiable to present the student with this 'noise' to cope with, since it represents actual speech conditions and dealing with it requires a filtering skill which the student can be assisted in developing. But the 'noise' once recorded is not subject to much alteration in editing, and unfortunately becomes a critical factor all too frequently. It should be noted that while 'noise' is part of natural speech situations, on tape such 'noise' becomes unnatural in that it is all at the same level of intensity and therefore nearly impossible to filter out by normal auditory focussing processes.

2. Implementation

The principal corpus for the Project was recorded during the summer of 1971, at various locations in Thailand, on a stereo cassette recorder of good quality. Approximately 65 hours of recorded speech were obtained which cover a wide range of speech transactions, such as: formal scripted speeches, formal extemporaneous speeches, official interviewing, media presentations (news, commentary, drama, etc.), guided tour commentaries,

extemporaneous discussions, business transactions, colloquial intimate conversation. Good examples of the more spontaneous categories, particularly of intimate conversation, were more difficult to obtain than other types more closely associated with literary norms, but several hours of such speech were obtained, greatly increasing the value of the corpus as a whole in research potential.

Taped materials were classified and evaluated for priority in processing to obtain a balanced sampling.

Two Thai assistants were trained in phonemic transcription, primarily that of Haas (1946) with minor modifications. The first step in processing was the transcription of taped speech into Thai script, then into phonomic transcription, with constant cross checking.

This step was fraught with more difficulties than had been anticipated. The native speakers serving as transcribers appeared to be invoking an "editing process", whereby they unwittingly tended to "correct" speech forms they heard which fell short of certain internalized standards, or which ran counter to semantic expectations derived from prior text. When confronted with various lapses on the part of speakers, the transcribers tended to reconstruct their own versions of the speaker's intentions. To report the actual facts of speaker behavior was a more difficult "extra step" for which added training and practice was needed.[1]

To determine whether this was only a problem in the Thai context, similar transcription activities were conducted in other languages. Samples of English spontaneous conversation were obtained, and native speakers were given the task of transcription, in this case orthographic. Even though these transcribers were trained linguists, strong evidence of editing and construing processes was uncovered. A striking example involved the hearing of somewhat unclear phonetic data first as one

lexical item, then another, on successive hearings. Clearly a construing process based on expectation was at work. It was concluded that Thai speakers were not unique in finding it easier to interpret speech behavior than to report its facts directly.

Repeated checking and adjusting were necessary to produce transcriptions which approached an isomorphic relationship to actual speech data. A Wollensak varispeed tape machine was of some assistance, in spite of machine distortion of a particular type.[2]

A total transcription output of several thousand pages representing about thirty hours of speech was the result of one year's work (June, 1972 - June, 1973).

A small subsample of transcriptions were subjected to more complete treatment. Various phonetic detail was indicated: vowel length altered by context, underarticulation of segmental consonants, some instances of tonal modification, length of pause time, etc. Another phase involved the translation of such texts into English and arrangement in parallel editions. Problems in translation are well-known to linguistic theory and practice, and none was avoided in the present study. In fact, for colloquial spontaneous speech to be translated severe difficulties were added to the already problematic process of more literary translation. The only course was the investment of much time, both in the painstaking consideration of morpheme-by-morpheme text processes, and in the appraisal of overall trends in the discourse under consideration and the impingement of sociolinguistic concerns. Even so, translations remain tentative, suggestive, and always open to additional revision, as are the transcriptions.

The final phase of the Project, that of analysis to isolate important structures in discourse and to describe their distribution, is still

an ongoing process.

Some areas of research and tentative findings are briefly indicated in four sections below. One particular set of structures is then selected for more intensive description, which forms the remainder of this report.

(1) Lexical units. While division of Thai speech into morphemes by traditional linguistic methods presents no particular difficulties, neither the Thai writing system nor strictly phonological criteria appear to enable unambiguous definition of a unit similar to the English 'word'. The chief difficulty arises in compounding of various types, a very common feature of Thai texts on all levels.

Even superficially clear-cut instances of bound morpheme + free morpheme sequences (e.g. nákrian, 'student'; kaanrian, 'studying'; khwaamkhâwcaj; 'understanding') occasionally lead to difficult and arbitrary decisions (khwaammâjpentham ~ khwaam mâj pen tham 'injustice'). The facts seem to point to a non-binary scalar analysis: compound lexical units can be ranked according to a 'cohesion metric' of some type, depending not on a strictly bound/free distinction, but rather on degree to which constituent morpheme distributions are bound, and how frequently particular compounds occur in speech.

This situation poses no particular theoretical problems, since, unlike the morpheme, there is no reason to suspect the 'word' is a universal linguistic unit.[3]

(2) Lexical form-classes. Modal auxiliaries of the preverbal type appeared to fall into three categories with respect to frequency. The unrealized/intentional preverbal/ca/occurred with high frequency in most spontaneous texts; the preverbals/jaŋ, khoŋ, phɔ̂ŋ, ʔàat, and kyàp/ occurred with low frequency; the remainder of the preverbal class (mák,

chák, kamlaŋ, caan, etc.)did not occur or occurred only rarely. Complex collocacions of preverbals such as the following were also rare and restricted to formal interviews:

...nákkaansèyksăa khɔ̌ɔŋ thaj sŷŋ sùan jàj kɔ̂ mák ca tɔ̂ŋ dâj ráp kaanfèykfŏn...càak myaŋ nɔ̂ɔk '...Thai educators who then generally will need to have received training abroad...'. Main verbs occuring with secondary or auxiliary function (e.g. tɔ̂ŋ, paj, maa, etc.) occurred more frequently.

It is interesting to note that the preverbal auxiliary slot is found throughout the Thai language family, but the actual forms filling this slot differ widely among the different languages. Often loan words from non-Thai languages are appropriated. A similar situation holds for some classifiers, pronominal morphemes, and phrase-linking morphemes. Kinship terms also vary considerably. In each of these categories lexical selection is influenced somewhat by sociolinguistic constraints (e.g. level of formality), at least in Central Thai.

The group of relational terms used in modifying constructions, (e.g. khɔ̌ɔŋ, thaan, dâan, hɛ̀ɛŋ, daŋ, jàaŋ, etc.) while not generally assigned to the same form-class were seen to function in similar ways in many discourse contexts, occasionally with sociolinguistic significance. Some relationships of inter-substitution were studied. (Cp. sathăabaan khɔ̌ɔŋ/thaaŋ/hɛ̀ɛŋ/ Ø râatchakaan,'official institutions'). The relationship between the similar forms dûaj/dooj was also explored to uncover to what extent they can occur interchangeably.

(3) Phrase structure. An important phase of research has involved uncovering principles which organize the placements of noun-phrase (NP) groups with respect to "governing"verb-phrase (VP) units. Discourse

materials clearly indicate a range of possibilities:

(a) NP_1 + VP

(b) NP_1 + VP + NP_2

(c) VP + NP_1

(d) NP_1 + NP_2 + VP + VP_2

(e) NP_1 + NP_2 + VP + NP_3

(f) VP

(g) VP + NP_1 + NP_2

(h) VP + NP_1 + NP_2 + NP_3

e.g.,

(a) (wannii) thaaŋ phanèɛk sỳksăa + maa tìt tɔ̀ɔ

'Today the education authorities came to contact (me).'

(b) raw + câaŋ + khruu phalaʔsỳksăa nỳŋ khon

'We hired one physical education teacher.'

(c) (măaj khwaam wâa) rian + náŋsỳy (kèŋ)

'In other words (they) study their lessons well.'

(d) rooŋrian X níi + baaŋ khon + khâwcaj wâa + lɔ̂ɔk lóm paj lɛ́ɛw

'(As for) X School here, some people thought it had completely closed down.'

(e) khwaamrúusỳk níi + săŋkhom khɔ̌ɔŋ raw + ca tɔ̂ŋ mii + panhăa baaŋ jàaŋ

'(As for) this feeling, our society must have problems of some sort.'

(f) rian tòk kɔ̂ lɔ̀ɔj ...

'(having) studied (mathematics and) failed then (I) just ...'

(g) bɔ̀ɔk + kháw lɛ́ɛw + phŏm

'told him already, I (did).

(h) hâj + khɔ̌ɔŋ + kháw lɛ́ɛw + phŏm

'already gave him the things, I (did).

We return to structures of the type in (g) and (h) in part 3 of the next section.

The exploration of these structures must take into account the effects of discourse context. Typically informants have one set of structured responses to decontextualized items, but respond differently when items are contextualized in discourse. This is not peculiar to Thai. Wheeler (1967) showed that for Siona one set of subject/object marking conventions was found to apply to isolated utterances, but quite another system for connected discourse. He stressed the importance of topicalization in distinguishing the two systems.

Topicalization, a process which focuses attention on a particular NP, has been the subject of renewed interest.[4] In Thai the usual rule that constituents are arranged in subject-verb-object order is a statement which holds true only for decontextualized segments; in discourse a more complex situation must be recognized. Object-subject-verb order is usual when the object has been introduced in prior discourse, is selected for some degree of topicalizing attention focus, and when the subject is a pronominal or other brief unstressed NP. After listing objects a speaker said:

nîi raw hěn dâj châj mái há? '(And) these things we're able to see, aren't we?'

In this case subject-verb-object ordering would be unacceptable.

Not all cases of $NP_1 + NP_2 + VP$ are preposed topicalized object:

(a) ʔaanačak khɔ̌ɔŋ ʔankrìt nìi phráʔaathít mâj khəəj tòk

'(And as for) the British Empire, the sun never set.'

(b) mɛ̂ɛnáam jom níi faŋ mâj sǔun ná

'(Speaking of the) Yom River here, the bank isn't high, is it.'

Examples (a) and (b) show a common topic-marking device: the use of a deictic form, here normal /níi/ realized as [nìi]; other common realizations are [nîa^{l}] [nìa^{l}] [nî^{l}]. In literary Thai topicalization is generally marked by the deictic /nán/. In one case of formal interview examined the social constraints operating appear to have caused a twice-marked topic:

roonyaan kradàat khɔ̌ɔŋ rátthabaan níi nán ...
'(As for) this (/that) government paper factory ...'

Quite often when a topic NP is present the connective /kɔ̂/ occurs before the associated VP. An additional possibility for marking topicalization involves pre-NP initiators such as /sùan/ 'as for', /chaphɔ́ɔ/ 'especially (with)', etc. Occurrence of topicalization was found at a fairly constant frequency (15 - 20 cases/1000 morphemes) in long segments of connected speech.

Somewhat the converse of topicalization -- selecting NP's for special attention -- is a process of de-emphasizing nominal arguments of a VP. In a series of VP's with identical arguments, e.g., subjects, typically the NP in question occurs only with the first VP in the series, and is construed for the successive ones. When a new NP argument is to displace the former one it must be explicitly stated to interrupt the construing process. Thus the frequently-heard claim that subject NP's are 'optional'in Thai must be refined when applied to analysis of actual discourse. Similar distributions hold for most object arguments.[5]

Much less frequently verbal material is dittoed or construed:

ca dûaj ùbàtheet araj kɔ̂ taam

'(It) might concern any accident at all...'

thýŋ mɛ́ɛ wâa mâj khɔɔj dûaj tôn ʔeeŋ kɔ̂ ʔàat ca dâjjin dâj fay

'Even though (it) may never have concerned yourself.(you) still may want to hear (something about it).'

Some verbs (usually of a 'stative' nature) rely heavily on discourse context to sort out relationships with associated nominal arguments:

NP_1 + thùukcaj + NP_2 'like'

NP_1 + tìtcaj + NP_2 'like'

NP_1 + phɔɔcaj + NP_2 'satisfied'

NP_1 + ŋɔŋ + NP_2 'confuse'

NP_1 + kɔ̀ɔt + NP_2 'cause'

In these and other similar cases there is potential ambiguity in agent/patient/object relationships which is resolved by discourse context using, inter alia, the principles mentioned above. In some cases more active verbs are involved:

khon nán mâj hâj khǎw baŋkhâp

(a) 'That man doesn't allow them to control (it).'

(b) '(They/we)won't allow that man to control (it).'

(c) '(They/we) won't allow him to control that man.'

(4) Larger units. In a relationship similar to the morpheme/word problem mentioned above, the data in the corpus clearly indicate that the phrase/sentence aspects of unit defintion call for much more empirical

investigation and much less reliance on ad hoc assumptions.

Do "sentences" occur in Thai speech? To answer this, a range of significant subtopics must be investigated. How are we to define the sentence with respect to Thai data? Do Thai "sentences" always measure up to English orthographic equivalents? Are we allowed to postulate deleted material to justify interpreting certain VP's as complete sentences? Are we to use semantic, syntactic or phonological criteria? What is the role of discourse context in "sentencehood"? What is the role of sociolinguistic factors?

Another question is what part should indigenous ethno-grammatical labels play? Thai orthography was seen above not to indicate morpheme or word boundaries explicitly. Phrase/sentence boundaries are sporadically indicated by the *wák*, a simple short gap in otherwise continuous text. Such gaps have only very loose governing conventions; most are unpredictable and are often influenced in printing by considerations of justifying margins, centering material, etc.

An experiment was carried out in which four different Thai informants marked a text for possible "sentence" divisions. Extreme variation resulted:[6]

"sentences" indicated by one informant	19%
two informants	19%
three informants	27%
four informants	35%

Ethno-grammar contains other terms, e.g.,/walii, woohăan, prajòok, ʔanuprajòok, banthát/ but formal definitions depend on poetic formulas, Sanskrit usage, or translated English usage. There appears to have

been no concerted effort to use such terms as descriptive devices in dealing with Thai prose, let alone speech. Accordingly informants are typically unsure which labels to apply to which speech segments, to the extent, of course, that "segments" are recognized.

Although examination of the sentence as a justifiable linguistic unit is beyond the scope of this study, a comment is needed lest the conclusion be drawn that data in the Thai corpus in this Project point to a radically aberrant position of Thai with respect to speech divisions.

The fact is that even for so well a studied language as English attention to actual speech phenomena, especially units in oral discourse, has been minimal.[7] When real speech has been studied, it has often been of a formal or even prepared variety.[8] While sentences in some formally-definable sense no doubt occur in colloquial English, is a converse proposal to be accepted on faith, that colloquial English is necessarily segmentable into complete sentences? If so, even superficial considerations would force the introduction of some deus ex machina such as postulating "surface" deletions (involving transparent circularity) or allowing for definitional modification, or else the hypothesis would crumble immediately on confronting actual "unedited" speech data.

Actually the sentence appears to have slipped into the repertoire of accredited linguistic units without much challenge. Ong (1944), Moreau-Marechal (1968), and Treip (1970) have discussed the complex relationship between the history of punctuation conventions and linguistic units determined by semantic vs. phonological vs. syntactic means. Gradually through conflicting systems and usages it came to be propounded that all three of these criteria were to unite and define, as marked by punctuation, a set of structures as "complete sentences",

which were then prescribed as the building blocks of rhetorical oratory and literary composition. The primarily semantic label "sentence" was appropriated from earlier less-specific use.[9] Clearly the history of this unit is closely tied to literary norms and conventions of writing, not to the objective classification of actually occurring units in natural speech. Whether linguistics has been justified in according this unit psychological reality and universal status may be answered only after intensive empirical investigation.

3. Linking in Thai discourse: a sociolinguistic view.

3.1 Linking and text environments. In most discourses appropriate connections constitute the unmarked state of affairs; thus if new material in a discourse can be taken as cohesive in some respect with preceding material, that aspect of the discourse will be automatically accepted and pass unnoticed. Usually little conscious effort goes into construing connections, but even when a listener fails to grasp the connection of new material to old and a state of groping comes into awareness, the usual assumption is misunderstanding - inability to construe - rather than senselessness.

Sometimes a listener may rest content in his inability to make a particular discourse connection, perhaps assuming that this transition will not be crucial to interpreting the discourse as a whole or that it will be accounted for in succeeding material. Perhaps this part of the discourse, or even the entire discourse, is of little detailed concern. Then again, the listener may go on to construe — to try to reestablish some plausible link in accordance with expectations and judgments of reasonableness. In each case the operative assumption is that a connection is there to be made, but how it may be dealt with is

the subjective business of the listener.

Even when antipathy to message content runs high or the listener experiences total disagreement with what is being communicated, there is substantial agreement as to how communication is to take place. In particular, the listener typically grants a wide benefit of doubt to the speaker with respect to connections: it is to be assumed that both listener and speaker share basic criteria determining sequences "connectable in principle", just as they share phonological, syntactic and lexical systems. In fact the latter system is more often held up to challenges as to commonality in a particular instance of failure to construe than is the linking system. ("That's not what I mean by 'justice'", not "I don't see what you could imply by saying X and then immediately saying Y.") Occasionally evidence for slight differences in linking systems might surface, but mostly it is "pathogenic" cases (delirium, infant prattling, special literary effect, etc.) which a listener is apt to take as "intentionally" disconnected or connected in some non-commonly held way either to prior speech or to other aspects of the situation at hand.

The possibility of connected discourse is a function of two types of variables: implicit links and explicit links. Below we show that for the samples of Thai discourse examined in this study, many links of both varieties depend on a construing process closely associated with sociolinguistic factors. In other words, in the samples examined much of the linking cannot be accounted for by abstracting the texts from their environments of occurrence and treating them as detached sets of symbols with such-and-such patterns of collocation.[10] In general, the possibility of this type of analysis increases directly in proportion to how closely a particular text approaches a normalized, formal,

literary type of language.

Explicit links in Thai include a loose class of conjunctive functional morphemes, e.g. /kɔ̂/ 'then', /thâa/ 'if', /mɨ̂a/ 'when', /tɛ̀ɛ/ 'but' (glosses are only suggestive). In addition, new discourse material may be linked explicitly to old by a group of contextualizing devices which are discussed in 3.2 below, and which we call reiterative schema. The evidence is fairly clear that these two explicit linking systems are quite complementary in Thai: morphemes of the conjunctive functional set are not frequent in reiterative schema. The text frequency of each system, as well as the text frequencies of particular units within the respective systems, all represent metrics tied quite closely to sociolinguistic features in textual environments. Some indication of how certain of the linguistic selections involved might be represented in a model preliminary to organizing speaker performance is the subject of 3.3 below.

A brief treatment of some ways in which implicit linking operates in Thai discourse follows. The results of this discussion are incorporated in 3.3.

Perhaps the most obvious type of implied linking involves asyndeton -- the omission of conjunctive functional morphemes which might otherwise be expected.

(a) khun X dâj pen phûuthɛɛn lɛ́ɛw, phǒm mâj kiawkhɔ̂ɔŋ ʔaraj tháŋ sîn

'(If) Mr. X gets to be a representative, (then) I (will) not be involved in any way.'

(b) kháw bɔ̀ɔk wâa juu paj jùu nán nà tɔ̂ŋ sɤ́y rya wáj

'He said (if) "you" (ENG) go live there, eh? - (then) you'd need to buy a boat to have on hand.'

(c) khyy jàak sǒŋsǎj ʾaraj, jàak ca thǎam ʾaraj phǒm, phǒm rúu, phǒm ca bɔ̀ɔk

'I mean, (if you'd) like to show interest in anything, (if you'd) like to ask me something, (if) I know (then) I'll tell (you).'

In (a), (b) and (c) a variety of conditional sequences are stated without explicit links. Thai has such links available, e.g.,

thâa X, (NP) kɔ̂ VP 'If X, then NP VP'

In English, if or an equivalent is normally present in a condition[11], whereas then is clearly optional and redundant (i.e., provides little extra information about the intended relationship of phrases other than perhaps mild emphasis). In Thai it appears that both /thâa/ and /kɔ̂/ are optional in conditional sequences, at least at the level of conversational discourse represented in the samples. Other conjunctive functional morphemes in Thai are similarly dispensable.

Two separate questions arise with asyndeton, and must be clearly distinguished: (i.) Which instances show cross-language English/Thai contrast with respect to optional/obligatory marking of phrase relationships? (ii.) Which instances of optional marking in Thai are associated with stylistic or other sociolinguistic factors? There is naturally no reason to expect any relationship between the questions.

(a), (b) and (c) above did not occur in vacuo; they were contextualized by preceding discourse, and for (a) and (b), further by the physical presence of referents (Mr. X and a boat, respectively) within the perceptual sphere of the listeners. There is little doubt that virtually all native speakers of Thai, given surroundings and preceding text, would construe the conditional linking intended. In

other contexts different links might need to be construed. In (a) and (b) contexts clearly demand an unrealized aspect associated with the conditional implied. Such an aspect is often indicated by the preverbal auxiliary /ca/, but in the examples it is not present. Thus (a), in a different context, might well be construed as a past-time completed statement (in accordance with past/completive forms daj ... lɛɛw) followed by a result:

> '(Since) Mr. X has gotten to be a representative, (consequently) I am not involved in any way.'

But ambiguity would arise only from decontextualization.

As a particular discourse text runs on, listeners extract and retain in memory information needed to construe links later on. Lyons (1963) has shown how this process accounts for the intricate development of syntactic and lexical interrelationships at different stages of a given 'universe of discourse':

> Context is to be regarded as constantly 'building up' from universe of discourse, taking into itself all that is relevant (we cannot escape in general theoretical discussion from the crucial term 'relevant') from what is said and what is happening...Now as the conversation develops...and as a result of events taking place or certain objects being present in the vicinity, various factors and features relating to these objects and events and to the information divulged in the course of the conversation are, for the most part unconsciously, taken into account by speaker and hearer. (p. 84.)

These various factors and features along with textual information go into the making up of "meaning-relations that are established...for particular contexts or sets of contexts, and not for the totality of the language" (p. 80). These relations are shared by speaker and

listener over the course of the text, and through them the listener is prone towards interpretations presumably intended by the speaker, or as Lyons puts it,

> The hearer does not in most cases first identify the utterance by its form and then understand it. Rather, he must be though of as being in a certain state of 'expectancy' (or 'mental set'), in which he is disposed to hear certain units rather than others...and to interpret what he hears (that is to say, the utterances composed of units) in one way, rather than another. (p. 35.)

A clear examples of how this interpretive process leads to the construing of discourse links arises in the case of anaphora, which for Thai can be loosely classified as deictic or substantive.

Anaphoric deixis in literary Thai most commonly employs the form /nán/ "that, the". In the oral examples from the present corpus, the overwhelming selection was níi/nîi "this", even for rather formal speeches. The distributional frequencies of these forms are thus significant indicators in distinguishing oral and written modes.[12] In general, these forms provide strong, if obvious, bonds throughout oral discourse often with a function suggesting that of the definite article in similar English situations: a particular NP is marked as being coreferential with a prior discourse nominal (not necessarily the exact collocation of morphemes in the succeeding NP). Very occasionally verbal material is so treated:

> lέέw man khyy paj níi khráp lέέw man mii khwaambandaancaj
>
> 'Then it is this go(ing around, i.e. travelling about observing diverse social conditions that caused me to start writing stories), you see, then it contained the motivation'.

The above example occurred in response to a question as to what the

motivation was for writing stories, and the speaker had just finished describing a series of trips. Thus listeners would be prone to construe the interpretive material shown in parenthese, -- not, of course, through conscious effort.

The type of construing done through deictic anaphora represents a linking process somewhat distinct from interpreting asyndeton as mentioned above. In the latter case fairly abstract phrasal relationships like conditionality, causality, etc. are to be supplied in lieu of conjunctive functional markers; with deixis, more concrete, generally nominal, material is called up from past occurrence. But in both cases the role of expectation is important.

Nominal material is also called forth by substantives, particularly by classifiers, hypernyms, hyponyms and pronominals. The first three categories may also have associated deictic modifiers, further strengthening the linking process. Rarely are pronominals so modified.[13]

The anaphoric-linking function of classifiers has generally been overlooked in standard treatments of this form class, since it often overlaps with the familiar enumerative construction:

a. sùan nâŋsyy lêm rɛ́ɛk thii phim ?ɔ̀ɔk maa, niráat nán
b. (INTERVENING MATERIAL, approx. 45 sec.)[14]
c. phim phan lêm

a. About the first book (I) published, that poem,
b. (INTERVENING MATERIAL)
c. (I) published a thousand copies (of it).

Similar anaphoric links were made from other nominals to their classifiers:

⟨a prince⟩ (INTERVENING MATERIAL) phráʔoŋ... 'his highness...'

⟨a house⟩ (INTERVENING MATERIAL) lǎŋ... 'the building...'

Certain classifiers coincide with nominal hypernyms, i.e. superordinate classificatory categories in a semantic taxonomy:

⟨a specific individual⟩ (INTERVENING MATERIAL) khon níi... 'this parson...'

⟨a specifically named school⟩ (INTERVENING MATERIAL) roonrian... 'the school...'

Other hypernyms are nominals not regularly used as classifiers:

⟨a particular train⟩ (INTERVENING MATERIAL) rót... 'the vehicle...'

⟨400 baht⟩ (INTERVENING MATERIAL) ŋən... 'the money...'

The use of hyponyms, subordinate classificatory taxa, as anaphoric links in discourse must be considered as somewhat functionally distinct from superordinate anaphora. This is because in the latter case use of the hypernym adds no new information (nor in most cases connotative additions) to the referent recalled, but with hyponymy a semantic "zeroing-in" from general to specific accompanies the back reference:

⟨a friend⟩ (INTERVENING MATERIAL) specific name...

e.g.

> baŋ²ɔɔn phŷan khon thîi mâj dâj khít ca nǐi klàp nǐi paj sǐa kɔ̀ɔn...cìt níi kɛ̀ nǐi cíŋciŋ lɔ̀ɔj
>
> 'It happened a friend, one who hadn't been thinking of escaping, instead escaped first... Cit here, he really did escape.'

In this example the proper-name hyponymy is accompanied by other anaphoric elements.

The most familiar type of substantive anaphoric linking is done with PRO forms, which might be called pronominals in Thai rather than pronouns to emphasize the distributional facts: unlike English pronouns which are neutral with respect to variables other than person, gender, number and case, the Thai forms add important sociolinguistic information. As such they are not colorless substitutes, but part of a larger system of personal terms, including names, nicknames, titles, kin terms, occupational terms, etc., all of which are tied firmly to social constraints. An important member of this set is the zero element: pronominal and other personal forms may be "omitted"(from the English standpoint) in some syntactic environments, but also in the presence of particular social constraints which would render selection of forms from the normal set inappropriate or even risky and awkward. When the syntactic environment does in fact require a specific form but the social constraints produce selectional conflict, communication generally will not occur.

Frequency data for four common third person pronominals are summarized in Figure 1. For all the samples represented the usually inanimate or non-human/man/ occurs with frequency significantly higher than frequencies for the strictly animate (normally human) pronominals.

	Text:	1	2	3	4	5
relative distribution of four 3rd person pronominals (%)	/man/	100	54	59	79	63
	/kɛɛ/	-	9	24	2	17
	/kháw/	-	28	17	19	12
	/thân/	-	9	-	-	8
aggregate frequency of 3rd person pronominals per 1000 morphemes		2.2	18.2	18.3	26.1	32.0
total morphemes in sample		2248	6235	1857	1802	3944

Figure 1
Distribution of third person pronominals in five texts

The forms /kháw/ and /kɛɛ/, common third person human pronominals have occasioned considerable conflict in Thai grammatical studies, which can be summarized as follows:

I. Issue of respect with reference to speaker/referent relationship

1. /kɛɛ/ indicates greater referent respect, status, than /kháw/ (Brown, 1968; Gething 1972); see also 5.
2. /kɛɛ/ indicates lesser referent respect, status than /kháw/ (Khanittanan, 1973)
3. /kɛɛ/ and /kháw/ not differentiated as to respect, status (Haas, 1964; Campbell, 1968; Noss, 1964)
4. /kɛɛ/ indicates greater respect if intimate, otherwise less (Cooke, 1968; some informants only)
5 /kɛɛ/ indicates greater respect if greater status, otherwise (i.e., of one of lesser status) condescending. (Palakornkul, 1973)

II. Issue of specificity/indefiniteness of referent

1. /khǎw/ (but not /kɛɛ/) "also indefinite"(Haas, 1964)
2. /kɛɛ/ considered appropriate for "in-group"; /khǎw/ considered appropriate for "outsiders" (Noss, 1964)
3. /kɛɛ/ used only in singular sense (Khanittanan, 1973; Haas, 1964)

III. Issue of formality of discourse context

1. /khǎw/ more appropriate than /kɛɛ/ in formal situations (Cooke, 1968; some informants only)
2. /khǎw/ indicates an "ordinary"rather than "formal" relationship (/context?) (Khanittanan, 1973).

Cooke (1968) is alone in presenting evidence for at least two distinct systems among the informants used in his study.

In an effort to explain the conflicts in results from the studies above, over 20,000 running morphemes of text, including segments from ten samples of separate discourses, were examined for third person pronominal reference. Seven representative samples are summarized in Figure 2. In addition to referents for /kɛɛ/ and /khǎw/, those for /man/ and /thân/ are listed; all previous studies consulted agreed in assigning [-respect] to /man/-referents when human, and conversely [+respect] to /thân/-referents.

A revealing (but quite rare) situation in the texts examined involved a switch of pronominal forms with constant referent. In most cases the switch was to /kɛɛ/, i.e., pronominal reference was first established with a different form (/khǎw/, or once, /thɔɔ/) and subsequently changed to /kɛɛ/. In one text there was found a referential link of the sort N. > /kɛɛ/ > N. > /khǎw/ > N. > /kɛɛ/ (N. = 'name').

Text	/man/	/k /	/kháw/	/thân/
1	inanimate	Ø	Ø	Ø
2	people (indef.) mankind a naughty daughter a working-class pers. inanimate corrupt politicians	a junior politician ↔ (who was present)	a junior politician (who was present) other politicians former students foreigners people (indef.)	political candidates (indef.) a member of crowd (pres.) sp.'s brother (elder) a former Prime Minister the King
3	inanimate	sp.'s father an older colleague a market woman a corrupt official	people (indef.) an older colleague ↔ a market woman an unspecified author	Ø
4	inanimate a mad man	Pasternak	a specified fellow author a mad man people (indef.)	Ø
5	inanimate a giant untouchables children high-school students the Russians	a Pope Galileo Ellsberg Bertrand Russell	scientists (indef.) Brahmins Athenians Plato MacNamera the Chinese	a monk a professor (pres.) Buddha Jesus
6	inanimate corrupt officials new teachers governmental units	Ø	people (indef.) an acting deputy communists school administrators the World Bank teachers (indef.) officials (indef.) buyers (indef.) sellers	a minister (pres.) a representative (pres.)
7	new students inanimate	founder of inter- national program	villagers (indef.) laborers scholars (indef.) people (indef.)	Ø (N.B. /thəə/ founder of international program)

↔=switch of PRO form

Figure 2
Referents of third person pronominals
in seven texts (order of first occurrence)

The general criterion of specificity/definiteness/singularity (II. above) appeared to be operative. In addition in a quite formal text of considerable length no instances of /kɛɛ/ occurred, which might be seen as partial evidence for an informal distribution. But in the more formal texts /kháw/ was rarely used in a specific singular sense[15], with hypernyms and classifiers (e.g., /khon nán/) serving the anaphoric function. The distribution could be summarized:

	specific, singular ref.	indefinite, general and/or plural ref.
formal context	(kháw), NP	kháw
informal context	kháw, kɛɛ (NP)	kháw

Within the informal/specific quadrant, specifications of /kháw/ or /kɛɛ/ seems to be less clearly defined. The cases of switching towards /kɛɛ/ substantiate an "increasing specificity" criterion: a referent may be "vaguely" (?) referred to at first, and then more specifically. None of the rather complex respect/status/intimacy relationships in I. above was substantiated very well. The results of informant work during the course of explicating the texts were equally inconclusive, but all informants in highly idiosyncratic ways agreed that status/respect/intimacy considerations were of significance in choice. In a vein somewhat similar to Cooke (1968), it seems reasonable to conclude that Thai speakers vary idiolectally in how the specific contrast in question is made. The selection may in many cases involve specificity indirectly: "whom does one have a right to be highly-specific about?" It may be that individuals' differing responses to this question in particular instances would account for

their selectional behavior and incidentally contribute to ethno-assessments of personality.

In some cases /kɛɛ/ even might be treated as a 'specificity marker' rather than an anaphoric pronominal, e.g.,

(a) phɔ̂ɔ phǒm kɛɛ pen khruu...

'My father, he was a teacher...'

(b) tɛ̀ɛ jaaj mɛ̂ɛkhá̌a nán kɛɛ thy̌y tɛ̀ɛ kracàat

'But the old market woman, she carried only a basket...'

From a syntactic point of view the use of /kɛɛ/ in (a) and (b) is extraneous, in that the immediately preceding NP's could fill subject positions adequately. But in each case the NP's in question are treated as focal points in brief narrative segments around which other events and persons are taken as peripheral. /khaw/ on the other hand occurs in the same type of syntactic construction with an 'indefinite' marking function, as in the frequent collocation:

khon ʔỳyn khá̌w VP

'Other people, they VP'

Given this possibility, in certain discourse contexts there is clearly a distinctive distribution in the two forms:

(a) naaj dɔ̀ktɔɔ dɛɛnnian ʔelsabɔ̀k kɛɛ kɔ̂ paj lâw hâj khon fay,

(b) khon khá̌w mâj chŷa, kɛɛ kɔ̂ moohŏo

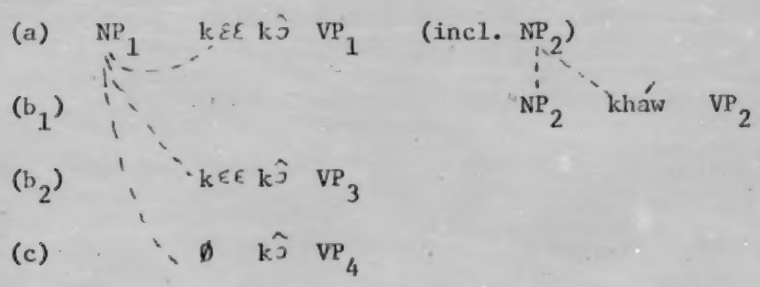
(c) kɔ̂ chɛ̌ɛʔèekkasă̌an láp maa níi hâj chaawbâan rúu...

(a) 'Dr. Daniel Ellsberg, he went and told people;

(b) people, - they didn't believe (it), so he got angry

(c) and exposed the secret document to let ordinary people know...'

The anaphoric linking structure of this segment might be shown as follows:



Since the referential equation /kɛɛ/ = NP_1 ('Ellsberg') is established in (a), when /kɛɛ/ re-occurs anaphorically in (b_2) there is no problem in construing the intended referent, in spite of the fact that the immediately preceding nominal in subject position is not the intended referent NP_1 but rather NP_2. NP_2 is further set off by its association with /kháw/ in (b_1). Note also co-occurring marked linking with/kɔ́/in (a), (b_2) and (c), and that by the dittoing principle no subject is stated in (c), as (b_2) and (c) are clearly in sequence.

A somewhat different linking chain must be used when the same pronominal is assigned to two contiguous referents in a discourse segment. Figure 3 shows such a pattern, abstracted from an actual segment.

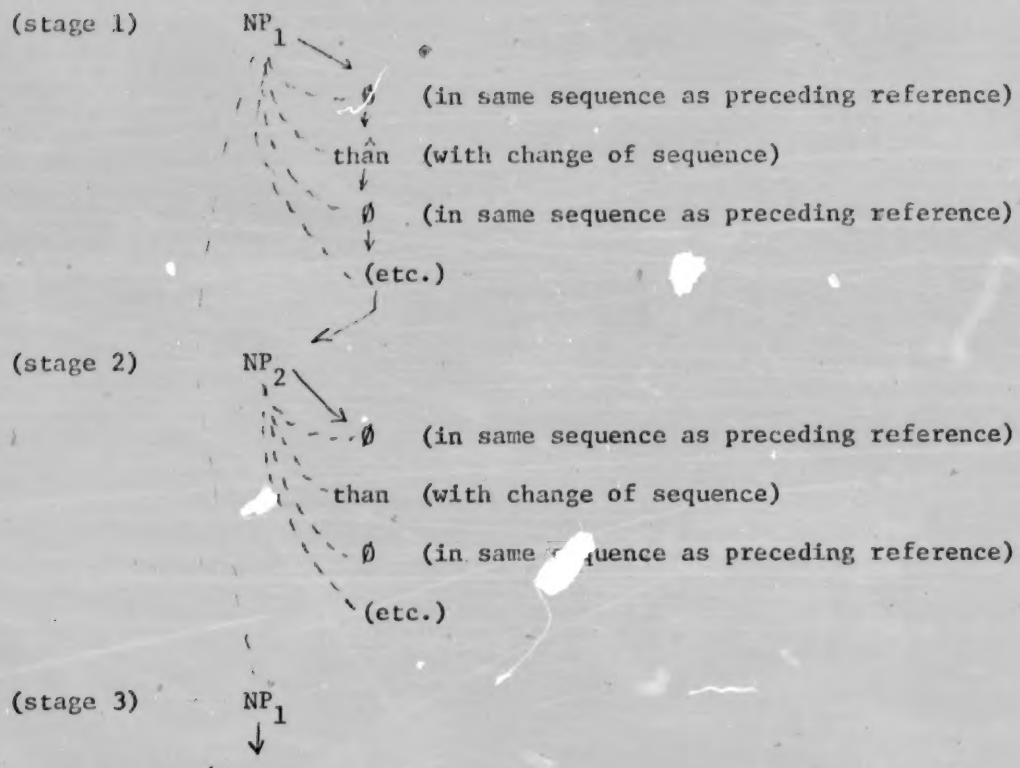


Figure 3
Anaphoric chain

Since /thân/ is assigned to both NP's as appropriate pronominal, a switch of referent requires the breaking of the preceding anaphoric chain.[16] This is accomplished by re-introducing the fully-specified original NP or else an adequately specified substitute. This is the situation at stage 3 of the segment in Figure 3.

Thus the distribution of anaphoric elements in the Thai discourse samples analyzed is to be seen as the result of three interacting systems:

(i.) syntactic sequencing, which usually calls for the ditto-ing principle;

(ii.) multiple occurrences of pronominals in the same discourse segment with different referents, which are

assigned either the same or different, pronominals;

(iii.) selectional criteria of respect, status, specificity, etc., which affect both (a) whether a pronominal will be selected, or whether anaphora will be accomplished in another way (e.g., classifier, hypernym, restatement of NP, etc.), and (b) in the case that a pronominal selection is to be made, which particular form is to be selected.

Probably this complex is shared by most native speakers of Thai, with the possibility of slight individual differences as suggested above. As a discourse progresses, more and more anaphora becomes available as a linking device. Cicourel has referred to this (somewhat opaquely, from the point of view of standard linguistic technical terminology) as "embedded usage", i.e., anaphoric equations "embedded" (not syntactically) in preceding discourse:

> As strangers continue talking they may begin to develop embedded usage that can sustain relationships between them and evoke particular meanings with truncated expressions on later occasions. Embedded terms and phrases become indexical expressions carrying fringe information that encodes meaning structures considerably beyond... denotative meanings. (1970, p. 155.)

Cicourel is surely correct in extending "embedded usage" from links within a specific discourse event to a broader realm of socially constructed personal relationships operative through a wide range of entire discourses.

In a Thai bureaucratic unit the pronominal /thân/, given the absence of a different referent in discourse, will usually apply

unambiguously to a particular high official (the unit's boss) without the need of specifing the antecedent on every occasion of use. The correct referent is construed by co-workers automatically. But when speaking to an outsider, to one not sharing this convention (e.g., an official visitor), care will be taken to establish the intended link before anaphoric reference becomes operative.

But among farmers in a specific village, the same form /thân/ may be employed unambiguously without antecedent statement to refer to the local Buddhist abbot. This is their convention. Again, to outsiders the link would need to be established explicitly.

A similar case of the [-respect] human-referent use of /man/ is also common among many groups. Elementary teachers often use /man/ without antecedent to refer to their students in general. In this case discourses with outsiders might show not only specification of antecedent, but also selection of a different pronominal form (perhaps /kháw/).

The three principles stated above which in tandem were seen to guide distribution of anaphora must thus be amended. Discourse has both an "inner" (textual) environment and an "outer" (situational) one. Actually we have already seen that selection of /kháw/ or /kɛɛ́/ may depend partially on the formality level involved, which is another case of outer environment affecting anaphoric linking. Outer environments are subject to sociolinguistic controls: we have seen how group structure can affect the issue of explicit antecedent statement.

Next we turn to a related interplay of inner and outer discourse environments: the principles organizing the distribution of what might be called "quasi-proper nominals" (henceforth QPN).

In English a discourse principle closely related to pronominal

anaphora distributes most NP's with definite determiners (the, this, etc.) in positions subsequent to the first appearance of the referent in the discourse (e.g. "... and she met a wolf. Now the wolf said..."). A clear exception is in the case of true proper nouns ("the Mississippi River", "the Statue of Liberty", "the First Lady", etc.).

However other nominals not strictly proper also occur with the definite article without antecedent clarification. In these cases there is generally a group of insiders who can rely upon each other's construing techniques:

(a) "...the post office"	(residents of the same town)
(b) "...the corner"	(neighbors)
(c) "...the car"	(members of a one-car family)

Grieve (1973) reports the results of an interesting experiment to uncover behavior of subjects in assigning definite determiners to NP's not given discourse antecedents. He found that subjects assigned the rather than a when they had been familiar with the referent previous to the discourse and believed that the discourse recipient (the medium was written) would also be familiar with the referent.[17]

This use of unintroduced definite NP's in English is an instance of QPN.

In Thai, while there are no definite articles exactly corresponding to English, there are nonetheless QPN's, as can be seen from these examples:

(a) The term /sǎam jâak/ ('three-way intersection') for one group of Bangkok residents is used without antecedent to refer unambiguously to a particular nearby large intersection/

shopping-area; but for a different group living elsewhere the same term refers to a different intersection/shopping area.

(b) The term /talàat/ ('market') functions in rural areas in a similar way. Its use effectively defines marketing groups, i.e., individuals and subgroups frequenting the same market. Those using a different market will use /talàat/ unambiguously for their market.

The only problem occurs when speaking with outsiders -- those for whom the QPN referential convention is unknown. In this case regularly the referential equation must be given explicitly at least for the first occurrence. In the cases above this would be done by adding a proper qualifier. The situation is thus quite parallel to that of pronominals discussed above.

Sometimes outsiders are expected to conform to construing conventions even without explicit equations given. A rural Thai woman visiting her mother-in-law's village will "fit in" with the use of /talàat/, unqualified, as referring to the mother-in-law's (not her own) market.

Kinship terms present an extremely frequent type of QPN in intimate colloquial discourse. Through their extended use, there is no requirement (as there is more-or-less in English) that insiders in referential construing conventions must be members of the relevant kin units. Situational factors beyond personal relationships <u>per se</u> are also important in the distribution of these QPN's. Thus a group of women friends may be waiting for another woman to come. A woman in the group (of no actual kin relationship to the absent person) may say,

phîi jaŋ mâj maa 'Older sister/brother has not come yet.'

In this case the association of /phîi/ with the absent woman would be automatic by virtue of the fact that the group was waiting for her, and was thus prone to make the needed anaphoric (or perhaps simply referential) link. Thus selection of this particular nominal is influenced by situation of utterance as well as by (fairly invariant) personal relationships.[18]

From QPN's it is but a short distance to technical vocabularies, jargons, and esoteric in-group terms. In fact the placing of special readings or semantic interpretations on "normal"lexemes characterizes many professional language "subforms", to use Sapir's term. This is clearly a restricted instance of QPN.

An example of the 'Bangkok student subform' from the corpus:

phǒm kɔ̂ khəəj jùu rooŋrian triam maa kɔ̀ɔn...'

'And I used to go to {preparatory} school...'
{= Triam Udom}

The NP /rooŋrian triam/ is on the face of it "preparatory school", but it also is taken as a particular very prestigeous school, /rooŋrian triam ʃudom (-sỳksǎa)/ (the Triam Udom (-sỳksǎa) Academy) among the group of Bangkok students and educators. The discourse following the segment quoted makes it clear beyond doubt that it is in this second in-group reading that the form is to be construed: the school is contrasted with its rival institution, /rooŋrian sǔan kulàap/. The specialized QPN use is reasonable in view of the common group-membership of speaker and listeners.

Similarly, in work activities a particular material, tool, process, location, etc., by virtue of frequent recurrence in the shared occupational

continuum of the workers, may be assigned QPN status. This type of "shop talk" is undoubtedly as common in Thai as it is in English, although restrictions in the corpus for this study preclude a detailed study. Again the structure of social variables in the outer environment, viz. occupationally-determined groups, is important in determining linking principles in the inner or textual environment. What needs to be linked to antecedents and what can be counted upon to be construed are functions of who is speaking with whom, specifically of the commonality of construing conventions shared by discourse participants.[19]

This proposal might be rephrased in terms of current linguistic-theory in semantics as follows: in discourse there are some "temporary" semantic redundancy rules which fill in features over limited segments of a text (i.e., apply to the inner environment of discourse) and are held as common construing techniques only by the group of discourse participants; in addition there are "restricted" semantic redundancy rules operative over small populations of socially determined groups. Actually the former may be considered a subset of the latter, since 'participants in such-and-such a discourse' could be taken as constituting a group.

If the type of "filling in" process suggested above were limited to the specification of "temporarily redundant" features in nominals, there might be some hope of systematizing the actual processes involved in such a way as to construct a predictive model: given such-and-such textual and outer variables, which semantic features will be construed? While such an undertaking might be attempted in a limited way, the theoretical possibility of an adequate analysis for construed links in general should be approached very suspiciously.

This is because it is not only redundant features in nominals that are involved in the construing process, as John Locke observed 250 years ago:

> "Tell a country gentlewoman that the wind is in the south-west, and the weather lowering, and like to rain, and she will easily understand it is not safe for her to go abroad thin clad in such a day, after a fever..." (1690:IV.17.4)

In Locke's example the lady's social class, past health status and perhaps her stated or obvious intention of "going abroad thin clad", as well as her and the speaker's shared preconceptions of local weather patterns, including wind direction, all go into construing a statement about weather conditions as a suggestion to get a coat.

The Thai texts in the corpus examined have many similar instances, but one particularly clear example was in the attempt to deal with the transcript of a Thai T.V. "soap opera" drama segment. Thai assistants experienced extreme difficulty in "making sense" of most of the transcript, apparently for two reasons: (1) they were unfamiliar with previous episodes of the series, but especially (2) they were deprived of visual (including kinesic) input -- the T.V. screen -- in their attempts to construe links. As would be expected in such a case, informants varied widely in how they construed links depending on what imagination supplied.

The construing of links is not simply a binary matter of ability or inability. A text is not simply "linked" or "unlinked" at a particular point to a given listener, but rather linked with varying degrees of ease and resultant cohesion. This line of analysis was clearly indicated by the 18-Century rhetorical expert George Campbell

in his Philosophy of Rhetoric:

> Hence it is that when a number of ideas relating to any fact or event are successively introduced into my mind by a speaker; if the train he deduceth coincide with the general current of my experience; if in nothing it thwarts those conclusions and anticipations which are become habitual to me, my mind accompanies him with facility, glides along from one idea to another, and admits the whole with pleasure. (1776, edt. 1963,p.83.)

Campbell's "trains" which "coincide with the general current of ...experience" provide the connection between implicit discourse linking and socio-cultural group structure. Shared experience, or "reciprocity of experience" of experience, can be seen as a way of organizing a hierarchy of social groups and subgroups. Individuals with high experiential reciprocity form "reciprocity groups", and it is normal (rather than exceptional) to expect that common currents of experience will lead to common "trains", i.e., common types of "proneness" or presupposition, which will lead to specific distributional characteristics for infra-group discourse structures. QPN distributions, "automatic properization" of pronominal forms, and other conventionalized "filling in" of semantic features by temporary or restricted redundancy rules are possible only given particular reciprocity groups. As this type of group structure expands to include more-and-more of those who share less-and-less reciprocal experience, specialized construing techniques fall off and the "core" discourse system held by the entire speech community is approached. In addition, the literary norm would be expected to relate to such a pared-down core, although the possibility remains of specialized literary vehicles restricted to limited audiences.

In general the more a reciprocal repository of experiential

aggregates can be counted upon by a speaker as available to the listener for the construing of a discourse, the more ambiguous will be the linking and related semantic redundancy operations from the point of view of an outsider, i.e., the "core" systems. Not, of course, from the point of view of co-members of the reciprocity group. For them the links are "normal", and not to use them, but to use the longer, more specified style of the larger system, is equivalent to denying the salience of the reciprocity group. A village woman speaking to a stranger and specifying her market as /talaat (+ proper modifier)/ is "excluding" the stranger from her marketing group. More revealing is a switch from in-group to out-group norms: one would predict that this would be done only with some accompanying type of marking (humor, formality, etc.).

Finally we must restrict the notion of "experiential reciprocity" somewhat, for not all shared experience is of equal value in setting up systems of shared construing techniques. Of primary importance is shared "catalogue of speech transactions", i.e., similarity of occasions in daily life when speech is used for communication. At first this proposal may appear self-defeating, for surely all members of a speech community could enter, potentially at least, into the same speech transactions. But this is not so, particularly in the Thai social system.

Probably all Thais share the transaction of "informal colloquial conversation among peers", but beyond this considerable socially-distributed divergence sets in.

Many transactions come with their own linking conventions. Thus when bargaining for a purchase, the general meaning of descending figures (seller) and ascending figures (buyer) is construed ambiguously

by all as "arriving at a sale price through mutual adjustment". In addition, formulaic phrases and explicit linking devices are prescribed for the transaction.

On the other hand, in a different transaction pairs of numbers might be organized with different construing conventions, as during betting in a village cockfight, during 'antiphonal chanting' of the multiplication table in elementary school, or during the national weather report. The construing of links in these transactions is particularly clear, but the process is by no means limited to utterances with figures.

Similar transactional constraints on linking structures emerge from formal interviews[20], guided tour formats, the giving of directions, etc.

Some transactions are "highly scripted", i.e., they occur with quite fixed content, or at least quite fixed frames (e.g., the daily national weather report; summoning a waiter in a restaurant and ordering, then later asking for the check; greeting a non-intimate acquaintance in the street; hailing a pedicab and establishing destination and price).[21]

Transactions typically come complete with kinesic prescriptions (e.g., hailing a pedicab, summoning a waiter, etc., are each accomplished by Thais with certain prescribed, but probably unconscious, schemas of bodily motion, especially face-set). The various role-relationships relevant to a given transaction may be given set positions (official: sitting behind table; client: standing at a distance of four feet, slightly bowed, hands at side). Muscular tension may even be prescribed or not as the case may be.

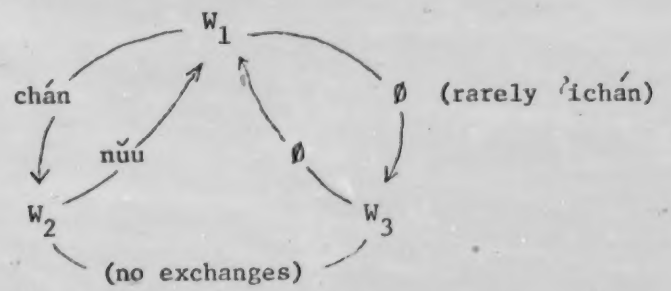
To suggest that all members of the Thai speech community share more than a limited core of common transactional experience would probably be short-sighted. However, it is clear that a very "basic" sort of transaction, that involving spontaneous conversation among peer-intimates (and perhaps other intimates as well) probably is common to all and probably is also characterized by common linking devices. One important device at this level will be described below, but because of limitations in the corpus it will not be possible to show that particular devices correlate with specific transactions.

In the Thai situation, it may be possible to develop a theory of speech transactions with quasi "distinctive features" derived from aspects of relevant role relationships for a given transaction. But transactions are not really "-emic" in the sense of mutually exclusive and contrastive, but rather are hierarchical in general with a few "-emic" or typologically distinctive subsets.[22] It might be objected that to recognize a level of speech transactions is an unnecessary multiplication of entities for the analysis of outer discourse environments: since aggregates at this level involve familiar role-derived descriptions (status, intimacy, etc.), why should not these alone be adequate for arriving at distributional principles?

The answer lies in the different weightings which particular transactions impart to "static" role descriptions. Thus in a family work situation where the speech transaction involves giving and responding to brief imperatives among family members, the factor relative age is of extreme importance in organizing the distribution

of linguistic variables such as final particles, address forms, and probably specific phrase structures. In a different type of speech transaction, say, routine inquiring and checking according to established procedure in a bureaucratic unit, relative age is of moderate importance only, with institutional status, personal connections and patronage associations, etc., also of significance. Thus polite particles might occur in speech of a senior to a junior person, in contrast to the distribution within the family transaction. In yet a third transaction, that of making a purchase with the requisite bargaining dialogue (i.e., a highly-scripted transaction), relative age of buyer and seller would normally be of much less significance, unless the gap were very great. Other factors such as sex, institutional status, etc., are similarly assigned varying weightings across different transactions.[23]

In one particularly clear example in the corpus three women were involved, W_1, clearly the senior of the group, and W_2 who, as the text makes clear, is older than W_3. As a setting for the text, W_1 has just entered a business establishment to conduct a routine commercial transaction with W_3, a clerk. W_2, also a clerk, then joins in the conversation. First person reference falls into the following pattern:



A close inspection of the text shows that two separate transactions are proceeding simultaneously, each with requisite first and second person reference patterns, final particle distribution, suprasegmental concommitants, and phrase structure systems, particularly in terms of linking. In addition the W_1 - W_3 transaction employes a very distinct lexical system characterized by wholesale borrowing of English technical terms, sometimes appropriated into Thai phrase structure in unique ways.[24] $W_.$ - W_2 is a "personal small-talk" type of transaction; W_1 - W_3 is getting business done. W_1 shifts effortlessly back and forth between the two transactions, activating in tandem first one linguistic subform, then the second.

Establishing a transactional level of analysis is also of value in analyzing communication break-downs and tensions. We have seen above that conflict or uncertainty in role-related factors organizing selections in the personal system (pronominals, kin terms, etc.) may lead to omission of forms if possible, or otherwise to lack of communication. More inclusively, unless an acceptable speech transaction is well-defined and available in the "transactional catalogues" of both (or all) discourse participants, and, given the transaction, unless the various weightings of role-related features indicated by it are present and well-defined, communication will be awkward and risky, and will probably not proceed unless there are present unusual overriding circumstances. Thus, given a clear and agreed-upon transaction (e.g., buying/selling), speech between total strangers is perfectly usual in the Thai context. But if there is no clear transaction, if participants in discourse have differing conceptions of which transaction is being conducted (with different related weightings for role features), or, finally, if there is conflict or

uncertainty in arriving at weighted aggregates of role features specified by a particular transaction, strangers in the Thai context will typically not initiate discourse.

We have found that one aspect of linking in Thai discourse requires the construing of implicit connections. It is safe to say that some of these connections would probably be made in essentially the same way by all native speakers of Thai, on the basis of principles organizing the cohesion of inner environments in discourse. But others must rely on varing degrees of outer environmental input, both from the immediate external circumstances of the discourse, and from aggregates of experientially-derived expectations and presuppositions held by discourse participants. These latter are dependent on the "transactional catalogues" they possess. Transactions come complete with linking conventions. Experiential reciprocity partitions the speech community as a whole into subsets of speakers with more-and-more similar transactional catalogues.[25] Therefore discourse linking depends to a significant extent on social structure. We return to this proposal in the light of feedback mechanisms in 3.3 below.

3.2 Linking and reiterative schema. In this section we are concerned with developing the type of analytical apparatus necessary to deal with one important dichotomy in the Thai speech transaction mosaic, that of formal vs. informal speech. Within the scope of this study we are unable to offer a complete framework for analysis. Rather we have concentrated attention on one particular type of linking structure relevant to the dichotomy (or, better, 'gradient scale'). This particular structure is both very common in our corpus and very much

ignored in previous studies. Furthermore it interacts with more commonly recognized methods of marked, explicit linking in such a way that to disregard it throws distributional patterning of these latter explicit links into confusion.

An anticipated criticism of the proposals and methods of analysis used below could be: "these data may be interesting in their collocations, but they represent speech (parole), not the linguistic structure of Thai at a unifying level characterizing the competence of all native speakers (langue)." This objection is met on two basic grounds: (1) The data in the corpus show very widespread inter-idolectal agreement in the employment and construction of the structural type in question, such that it seems in fact to characterize the common behavior of native speakers operating at one level of transactional activity; (2) To claim that the structural type in question is speech instead of language, because its occurrence is very restricted in literary language, and grammatical descriptions of Thai based on literary language, is to beg the question. We are interested in pin-pointing differences between the literary/formal language and what Thai speakers produce in spontaneous/informal transactions.

Grimes (1972) has noticed that in many types of oral narrative an "overlay" process may be used to organize the controlled introduction of information into discourse. Previous material is repeated to "contextualize" new. Grimes distinguishes for his purposes these "overlays" from what he calls mere "linkages" which repeat material but do not "back up the time pointer" of the narrative.

In materials examined at a spontaneous/informal level of discourse transaction, repetitive structures were found to occur with high frequency. Their function was often clearly a linking one reminiscent

of those that Grimes had described, but their distribution was by no means limited to narrative. Thus the issue of using the backing up of a "time pointer" to distinguish overlay from other types of linking did not arise. Rather it appeared that at least for Thai a great range of linking contextualizing repetition phenomena was to be recognized as significant in discourse cohesion. Overlay would be one type.

The repetitions fell into several types structurally, and it was the object of analysis to sort out and classify the various types and to establish as far as possible functional correlates. The results of this process are summarized below.

Repetitions often involved the holding constant of syntactic phrase structures, while certain substitutions within a fixed form class were made. In addition, specific lexical items might also repeat in parallel fashion. The effect was to produce a "block" or "schema" of parallel locking structures. The discourse would then proceed from one phrase to the next without the need of implicit linking, such as processes described in 1. above, or of explicit functional conjunctive morphemes (kɔ̂, lέɛw, etc.). But in some cases linking devices from these categories might occur along with the parallelism.

Example 1

Context: student commenting following a lecture; discusses materialistic attitudes in modern society

Text: mii tỳk màj màj mii bâan sŭaj sŭaj mii sŷaphâa sŭaj sŭaj nìi

"There are new buildings, beautiful house, beautiful clothing(...)"

In the example there are three phrase groups with the syntactic structure:

$$mii + NP_1 + V_aP_1 + V_a\ P.$$

where V_a refers to a verbal of the attributive type. To the third phrase is added a (non-literary) marker setting off the phrases from following material in the function of topic. Suprasegmental dynamics, apart from lexical tone, are parallel in the three phrases, but the parallelism is closely associated with the syntactic parallelism of the formula above. The fact that all three phrases are initiated with the verbal /mii/, and that in the case of the second and third, the repeated verbal /s̆uaj/, contributes strongly to the phonologically-reinforced cohesion of the group. This reiteration of specific lexical items along with associated constant syntactic position can be called 'lexico-syntactic reiterative linking.' An additional type of linkage is forged between the first and second phrases: syntactic structure is repeated, but actual lexical items are varied. Thus the syntactic categories alone repeat, and schemas of this sort can be called 'categorical-syntactic reiterative linking.' It remains to note semantic-taxonomic links between /tỳk/ "building" and /b̂aan/ "house", and possibly between the attributive verbals /màj/ "new" and /s̆uaj/ "beautiful"; such taxonomic linking is considered below.

To elucidate the various parallelisms involved, the text of Example 1 could be organized as follows:

mii	tỳk	màj	màj	
mii	b̂aan	s̆uaj	s̆uaj	
mii	s̆yaphaa	s̆uaj	s̆uaj	nìi

The schema is read across line-by-line to reconstitute the text. Reiterated material is arranged vertically without dividing lines; lexical items not reiterated are in distinct boxes. Suprasegmental material is not explicitly represented, but if it were, most relevant features would only need to be stated once for the horizontal dimension of the schema. This claim is not made generally for the schemas represented below, but the schema representation would provide a convenient arrangement for such research.

Turning to the classification of lexico-syntactic reiterative linking, we find at the lowest level a sort of lexical chaining that is hardly a linking device as such. This is the repetition of lexical items contiguously as a stammer/stall. The type is clearly to be isolated by appeal to its infra-phrasal nature, and as such could be ignored in a consideration of phrasal linking. But certain formal properties of this repetition as well as its distribution along with other reiterative material of a definitely linking nature suggest incorporating it into representations of reiterative linking. It seems highly likely that sociolinguistic variables associated with other types of repetition also, on occasion, serve to increase or decrease level of stammer/stall, although a high idiolectal differentiation also characterized samples from the Thai corpus examined.

In one idiolect examined items repeated in stalls were overwhelmingly high-frequency morphemes with approximately equal weighting for verbals, nominals, and conjunctive/adverbial morphemes. Most frequent items were the following:

verbals

pen	mii	ca	tɔ̂ŋ	cháj
"be"	"have"	"will"	"must"	"use"

nominals

man	phǒm	kháw	kaan-	khɔ̌ɔŋ
"it"	"I"	"he"	nominalizing morpheme	"thing"; possessive morpheme

conjunctives

kɔ̂	rɤ̌y	wâa	thâa	thîi
"then"	"or"	"(say) that"	"if"	relative morpheme

other adverbials

mâj

"not"

This group of items accounted for approximately 80% of the stammer/stalls in 15 minutes of text.

Stammer/stall is often accompanied by nearby pause, particularly infra-phrasal pause and pause filler forms/ʔəə~ʔaa/, which can constitute a 'complex stall'. In the following example pause, filled pause, and a structured type of repetitive stammer all contribute to interpreting the final phrase (e) as "being forged", rather than as having been forged completely at the time (a) was being uttered.

Example 2

Context: author speaking to student group; discusses two strangers having a conversation

Text: khyy maa khujkan chɔ̌ɔj chɔ̌ɔj .. ʔâa .. lɛ́ɛ wkɔ̂ mâj .. mâj .. mâj tɔ̂ŋ mâj tɔ̂ŋ mii mâj tɔ̂ŋ mii ʔ̀araj tɔ̀ɔkan

Arranging this in a schema:

(a)	khyy maa khujkan chɔ̌ɔj chɔ̌ɔj .. ʔâa .. lɛ́ɛ wkɔ̂	mâj			..
(b)		mâj			..
(c)		mâj	tɔ̂ŋ		
(d)		mâj	tɔ̂ŋ	mii	
(e)		mâj	tɔ̂ŋ	mii	ʔ̀araj tɔ̀ɔkan

(a) I mean they come and simply have a chat, ah, and then don't (b) don't (c) don't need (d) don't need to have (e) don't need to have any further contact.

Some advantage might be gained by including filled and unfilled pauses in schematic representation along with stammer/stall forms, as sometimes they seem to be arranged by common syntactic principles.

Example 3

Context: author speaking to student groupl has just given an extended account of a literary problem

Text: ʔəə ʔanîi phɔ̌m khít wâa man phûutkan .. man man .. ʔəə phûutkan mâj ʔəə .. mâj còp ná há

(a)							
(b)	ʔannîi phɔ̌m khít wâa		man	phûutkan	..		
(c)			man				
(d)			man				
(e)				phûutkan	..	mâj	
(f)						mâj	còp ná há

(a) uh, (b) in this I think (if) one talks (about it) (c) one (d) one (e) uh, talking (about it) no (f) uh, (there's) no end, you see.

The complex stall schemas in Examples 2 and 3 are similar in some respects. In each case the normal "horizontal" flow of syntactic linkage is arrested by "vertical" (from the schematic layout) linkage, i.e., lexico-syntactic reiteration. In each case one could reconstitute a phrase without stall forms by extracting only one occurrence per box of non-pause and non-filled-pause morphemes. Such reconstitution of phrases is a post hoc process of editing, closely associated with sociolinguistic determinants.

Edited form of Example 2

khyy maa khujkan chǎəjchǎəj lɛ́ɛ́w kɔ̂ mâj tɔ̂ŋ mii ʔaraj tɔ̀ɔkan

Edited form of Example 3

ʔannîi phǒm khít wâa man phûutkan mâj còp ná há

Note that the schema representations proposed are entirely defined by reiterative patterning in natural speech, not by norms related to sociolinguistic factors. Thus there is no circularity in claiming an important relationship between the horizontal schema axes and the editing process. Other editing measures are applicable to the material above as well; probably reduction to horizontal axis is only one, perhaps the first, step in achieving a range of graded variants.

The schemas for the examples above differ in specific details. Example 2 displays a "pyramidal" structure, with lines (b), (c), (d) and (e) progressively approaching a full verb phrase with object argument. Thus (e) represents the horizontal axis of the schema and would be selected in editing. In Example 3 no such explicit representation of the complete horizontal dimension is stated. Rather listeners must construe the semantic content of the complex stall for themselves,

in effect must extract the horizontal message in spite of vertical arresting of syntactic flow. In most cases this is done effortlessly and unconsciously by native speakers, since they share knowledge of the systems involved. However it would be unfounded to predict very much similarity in this matter across languages; perhaps some languages contain stall mechanisms quite modified or even entirely lacking in others. Thus there is no reason to assume horizontal message extraction in complex stalls will be automatic for second-language learners, for example.

Similar to the stall is a reiterative type common in the Thai corpus of the following sort:

Example 4

Context: author speaking to student group; discusses subjective tendencies in his writings

Text: khy phǒm kaanbanjaaj khɔ̌ɔŋ phǒm .. chaj́ tua ʔeeŋ pen làk jùu mâak mǎnkan

(a)	khyy		phǒm	
(b)		kaanbanjaaj khɔ̌ɔŋ	phǒm	(c) .. chaj́ tua ʔeeŋ pen làk jùu mâak mǎnkan

(a) (I) mean I, (b) my narration (c).. uh, focuses on myself a great deal too.

In Example 4, (c) contains unfilled and filled pause forms, indicating stall, and this fact along with horizontal/vertical relationship apparently similar to that of Examples 2-3 suggests assignment to the same type. But closer inspection reveals more than one possibility for construing. The phrase /kaanbanjaai khɔ̌ɔŋ phǒm/ could be construed as a parenthesis, in which case /phǒm/ (line a) remains as subject of /chaj́/ (line b); the phrase could be considered a substitution,

in which case the phrase operates as a "depersonalized" subject of /cháj/; or /phǒm/ (line b) could be considered a "pivotal form" serving both as subject (as stated in line a) and as a genitival form as amended in line b.[26] In reality different hearers may have perceived any one of these possibilities, in which case the entire set can be considered a kind of "gestalt". In any case what actually occurred in the discourse can be called an 'extension'[27], as a cover-term; and it should be noted that extensions may have various functions.

Evidence of the functional association of stall and adjustment is seen by their frequent interconnection in reiterative schemas like the following:

Example 5

Context: author speaking to student group; exemplifies a point by alluding to Doctor Zhivago

Text: khyy rŷaŋ khɔ̌ɔŋ khɔ̌ɔŋ .. khɔ̌ɔŋ rŷaŋ chíwaakôo khɔ̌ɔŋ páastɔ̂ɔnɛ́ɛk

(a)	khyy	rŷaŋ		khɔ̌ɔŋ	
(b)				khɔ̌ɔŋ	
(c)				khɔ̌ɔŋ	
(d)		rŷaŋ	chíwaakôo	khɔ̌ɔŋ	páastɔ̂ɔnɛ̀ɛk

(a) I mean the story by, (b) by .. (c) by (d) the Zhivago story by Pasternak.

Example 6

Context: student commenting following a lecture; cites an interpretation of the human condition given by a prominent Buddhist monk

Text: ?annîi phǒm wâa .. thîi thân phûut nán pen pen pen .. mâa prìapthîap kap saphawákaan pàtcùban pen khwaamciŋ jùu mâak

(a)	'annii phŏm wâa .. thíi thán phûut nan		pen
(b)			pen
(c)			pen ..
(e)		↑	pen khwaamcìŋ jùu mâak

(d) maa prìapthîap kàp saphawákaan pàtcuban

(a) On this I maintain..what he said is (b) is (c) is.. (d) comparing it to present conditions, (e) is quite true

In Example 5 four vertical reiterations of the morpheme /khɔ̌ɔŋ/ occur; in Example 6, four of /pen/. These might be represented schematically by a column matrix as shown below. In each example R_4 occurs with an extension; new material is inserted just previous to R_4, which then specifies how this new material is to be treated syntactically with respect to surrounding discourse. In the case of Example 5 the morpheme /rŷaŋ/ also serves this function, providing the nominal head to which the attributive extension is made. Letting Q stand for this morpheme, E for the extension, and m for other morphemes, the following matrices result:

Example 5

m Q_1 R_1

R_2

R_3

Q_2 E R_4 m

Example 6

mmmmmm R_1

R_2

R_3

E R_4 mmmm

For Example 5 the term E represents a single attributive morpheme; for Example 6, the same term represents an extension consisting of six morphemes functioning as a fairly autonomous syntactic unit. However in each example the discourse function of E is similar: an increase

in specificity is indicated.

The insertion of E into the context m(m...) (Q)__R m(m...), to judge from Example 4, could be accomplished without the use of R_2 and R_3. Altered versions of these examples would then be:

Example 5				Example 6			
m(m...)	Q_1	R_1		m(m...)	R_1		
	Q_2	E R_4	m(m...)		E	R_4	m(m...)

The schemas utilized in the examples above can be abbreviated by parenthesizing E and underlying R, where parentheses are used as a technical device relating to 'extensions' rather than to indicate function:

Example 4a

khyy (kaanbanjaaj khɔ̌ɔŋ) phǒm chaj tua ʔeeŋ pen làk jùu mâak mǐ̌ankan

'(I) mean (narration of) mine/I focus(es) on myself a good deal too.'

Example 5a

khyy rŷaŋ (chíwaakôo) khɔ̌ɔŋ páastɔ̂ɔnɛ̀ɛk

'(I) mean the story (Zhivago) of Pasternak.'

Example 6a

ʔannîi phǒm wâa thîi thân phûut nán (maa prìapthîap kàp saphawákaan pàtcùban) pen khwaamciŋ jùu mâak

'On this I maintain what he said (comparing it to present conditions) is quite true.'

What then of the omitted R_2 and R_3? The natural solution is to treat these reiterations as instances of stammer/stall similar to those in Examples 2-3. The decision is strengthened by the cooccurrence of hesitational pause with R_2 and R_3 in Examples 5 and 6 respectively. To

indicate the presence of stammer/stall material of this type in a representation like that of Example 6a, we employ a superscript notation:

Example 5b

khyy rŷaŋ (chíwaakôo) <u>khv̌ɔŋ</u>^{3} páastɔ̂ɔnʻʻk

The superscript 3 indicates the existence in text material of R_3 (and hence necessarily of R_2) the semi-final reiteration before the contextualizing reiteration R_4, indicated by underline. In the case of the morpheme /rŷaŋ/, no instances of analyzed stammer/stall are represented; the single reiteration is contextualizing. Note that Example 5b now summarizes the reiteration schema proposed in the previous box representation and displays all the data in the original given text other than filled or unfilled pause. Read without regard to underline, parenthesis and superscript, it also probably represents an important stage in the editing process.

The purpose in pursuing the distinction between stammer/stall and contextualizing reiterations involves the following point: while tye types can be formally and to some extent functionally distinguished by structural means, the actual mechanisms involved are seen to interact; thus the items most frequently repeated in stalls are among those often occurring as contextualizations in extensions; furthermore mixed matrices of the $R_1 \ldots R_4$ type above are quite common in some (but by no means all) of the Thai discourse material analyzed.

Further examples provide more insight into the relationship of hesitational to adjustment-associated phenomena.

Example 7

Context: author speaking to student group; has begun listing reasons for communication break-downs, and has just completed first item, which was introduced by:

ny aat ca pen phr waa (...)

'First, it might be because (...)'

Text: lɛ́ʔ sɔ̌ɔŋ ʔàat ca pen phrɔ́ʔ ʔɔɔ.. prakaan thii sɔ̌ɔŋ ʔàat ca pen phrɔ́ʔ wàa saphâap (...)

(a)	lɛ́ʔ				sɔ̌ɔŋ	ʔàat	ca	pen	phrɔ́ʔ	
(b)		..	prakaan thii		sɔ̌ɔŋ	ʔàat	ca	pen	phrɔ́ʔ	wâa saphâap

(a) And second it might be because (b) uh.. in the second place, it might be because the condition (of not being able to communicate..)

In the example the extension (prakaan thii) is clearly extraneous both in terms of message content and also as it relates to the listing format used earlier in the discourse (cited under Context above). That the function is predominantly hesitational is further indicated by the cooccurrence of filled and unfilled pause forms in the reiterative schema. Finally, inspection of following discourse material gives the distinct, if informal, impression of semantic quandry and general uncertainty, supported more analytically by the presence of an extensive complex reiterative schema (partially represented in Example 5a).

Other examples of extension appear less directly related to hesitation, and more immediately to be instances of semantic adjustment.

Example 8

Context: student commenting following a lecture; discusses Greece

Text: sapaatâa níi rôp kèŋ mâak rôp phûŋ kèŋ mâak

(a)	sapaatâa nîi	rop		kèŋ	mâak
(b)		rop	phûŋ	kèŋ	mâak

(a) This Sparta, (it) fought very well, (b) fought in battle very well.

A common adjustment consists of an extension for the purpose of mild intensification or emphasis:

Example 9

Context: author speaking to student group; complains of burden of newspaper office work (cf. Example 10)

Text: nân pen khwaamphùukphan thîi raw khít ca nǐi phǒm khít ca nǐi khít ca nǐi ciŋ ciŋ

(a)	nân pen khwaamphùukphan thîi	raw	khít	ca	nǐi		
(b)		phǒm	khít	ca	nǐi		
(c)			khít	ca	nǐi	ciŋ	ciŋ

(a) That's the bond we think of escaping. (b) I think of escaping, (c) really do think of escaping.

In (c) of this example the extension /ciŋ ciŋ/ 'really', mildly intensifies the verbal predicate preceding. Repetition of the /ciŋ ciŋ/ variety, similar to that of /màj màj/ and /sǔaj sǔaj/ in Example 1, have already been studied in detail (Haas 1942, Haas 1946, Haas 1964), and certainly represent a phenomenon distinct from the reiterative types presently under discussion. But perhaps at some level there is a certain generalized convergence; just as repeated morphemes are most frequently either instances of syntactically organized intensification or else syntactically arresting hesitation, so too longer morpheme groups appear to repeat in discourse with at least these functions as well.

In Example 9 the relationship of (a) to (b) presents special problems to be discussed below.

Example 10

Context: author speaking to student group; responds to a question as to whether he is presently happy

Text: mâj mii khwaamsùk khɔ̌ɔ jyynjan mâj mii lɵɵj

(a)		mâj	mii	khwaamsùk	
(b)	khɔ̌ɔ jyynjan	mâj	mii		lɵɵj

(a) (I) am not happy
(b) let me insist (that I) am not at all.

In Examples 9-10 the verbal material /khít ca nǐi/ and /mâj mii/ provides contextualization for the intensifying extensions. In each example nominal material, subject and object respectively, not present on the last line of each schema along with the extension, is nevertheless to be construed through the contextualizing function. But note that /khɔ̌ɔ jyynjan/ of example 10 is not an extension.

Example 11

Context: author speaking to student group; discusses meaninglessness in some conversations

Text: (henceforth text will be given in schema alone)

(a)		man ..				
(b)		man ..				
(c)	baŋthii	man ..				
(d)		man ..	mâj	mii khwaammǎaj		
(g)			mâj	mii khwaammǎaj		lɵɵj
(h)			mâj	mii khwaammǎaj	ʾaraj	lɵɵj

(e)	khun ..	
(f)	khun	khɵɵj hěn baŋthii khon kháw phûutkan thâŋ chûamooŋ nìaʾ

(a) It.. (b) it.. (c) maybe it.. (d) it has not meaning; (e) you (f) you have perhaps seen people they talk for a whole hour this way (g) (it) has no meaning at all; (h) (it) has no meaning of any kind at all.

(See example 59 for a continuation of this segment of the discourse.)

Similar problems arise in more complicated reiterative schemas like that of Example 11. Reiteration of the form man in (a) - (d) is to be taken as stammer/stall, since /mâj mii khwaammăaj/ cannot be considered an extension: (a) - (c) do not contain sufficient phrasal material to be extended. Pause and protracted articulation support the classification. On the other hand, in (g) and (h) the situation is clearly successive extension, recalling example 10. In that example a negative predicate in /mâj/ was intensified by extension with final-position morpheme /lᵊᵊj/. The relationship in Example 11 between (d) and (g) is very similar. But in the latter example (g) - (h) represents a further application of intensifying extension, with the morpheme /ʔaraj/ inserted into the schema. Disregarding (e) - (f), we can represent Example 11 in the following manner:

Example 11a

Text: baŋthii man^{3} mâj mii khwaammăaj (ʔaraj) (lᵊᵊj)

By underlining as well as parenthesizing the form /lᵊᵊj/ we suggest the order involved in the successive extensions, i.e., /lᵊᵊj/ is extension in (g) but part of contextualizing reiteration in (h), where /ʔaraj/ is the extension. The abbreviated format of Example 11a again succeeds in predicting an important level of editing, but in this case it does not completely represent the schema shown in Example 11. Although a convention (underline with parenthesis) can conveniently be adopted to show the structure of (g) - (h), the exact stall pattern of (a) - (c)

is not recoverable. Thus /baŋthii man man man man mâj mii khwaammǎaj (...)/ and similar sequences would equally well be represented by Example 11a.

It remains to classify (e) - (f) in Example 11. Clearly /khun^{2} khɔɔj (...)/ is the first step. Following this, we note a similarity to Example 6, in that a phrase of considerable semantic autonomy is introduced into the schema. If the cases are to be treated in parallel fashion, the group /mâj mii khwaammǎaj/ in 11(g) must be seen as having double contextualizing function: (i) to provide context for the /lɔɔj/ extension discussed above; (ii) to provide context for the longer extension (e) - (f). An instance of double contextualizing was already proposed for Example 10, and in general this phenomenon appears fairly frequently in the corpus analyzed. Finally we note that the extension (e) - (f) in Example 11 functions as a clarification of the topic only vaguely suggested in the anaphoric /man^{3}/, which in its discourse context relates back to an abstract and incomplete set of statements of which (e) - (f) represents a concrete example. This adjustment of topic is further marked by the deictic form /nìa$^{?}$/, which is found to occur frequently in topicalization patterns throughout many samples of oral Thai discourse.

Such "sharpening" of topic can be considered a special instance of a more general range of sharpening adjustments made through the extension structure.

Example 12

Context: sales agent speaking to older client; responds to question (Q) as to how long she has been working

Text:

(a) Q: tham maa naan lɛ́ɛw rɔ̀ɔ kha

(b) A:	pii		nyŋ̀	[khà]
(c)	pii	kàp dyan	nyŋ̀	

(a) Q: You've been doing it a long time then?

(b) A: One year; (c) a year and one month.

In this example a temporal sharpening adjustment is made. Of special interest is the final polite particle /khâ/ [khà], which occurs only in (b). Thus (c) by itself is not a complete and acceptable utterance in the sociolinguistic context (age difference, lack of intimacy) of the conversation. (c) then is not intended to supercede (b) as a complete restatement involving temporal correction, but rather to add sharpened temporal information into the answer pattern established by (b), a relationship in substantial agreement with the adjustment/ extension analysis. Sharpening however need not exclude elements of correction.

Sharpening in some cases may actually involve specifying a degree of intended uncertainty which initially was unstated.

Example 13

Context: student commenting following a lecture; discusses problem of visible results from spiritual exertion, presupposing Buddhist doctrine of reincarnation

Text:

(a)		raw	taaj lɛ́ɛw	
(b)	rv̌yy		taaj lɛ́ɛw	kìi thii kɔ̂maj rúu ..
(c)				man thv̌ŋ ca hěn

(a) We've already died (b) or have already died who knows how many times, (c) before it becomes visible.

Here an explicit linking morpheme /rýy/ is used to signal more definitely the relationship of (a) to (b), but the requirements for an extension are equally present. In the schema a line over /rýy/ restricts its domain of applicability to (b); /raw/ in (a), on the other hand, is not so separated as it is construed for the entire column.

More frequently extensions representing temporal sharpening involve a "zeroing-in" procedure, as in the following.

Example 14

Context: school director addressing auditorium audience; mentions a special performance planned for a student dance group

Text:

(a)	ca ʔɔ̀ɔk naj sìi	dyan					khráŋ nyŋ̀
(b)		dyan	siŋhǎa			ʔìik	khráŋ nyŋ̀
(c)			siŋhǎa		pramaan plaaj dyan		
(d)			siŋhǎa	nîi			

(a) (They'll) perform once in four months, (b) once again in August, (c) August about the end of the month, (c) this August. (Ch. 62.)

In the above example the successive extensions are quite straightforward, with siŋhǎa introduced as extension in (b) and thereafter serving as contextualizing reiteration. Contrary to preceding examples, the horizontal axis of the schema does not immediately suggest a significant level of editing without further modification, although some improvement might be made by rearrangement of vertical columns. The problem appears to involve the placement of /naj sìi dyan/ 'in four months', of which /dyan siŋhǎa/ is a particular instance. Temporal sharpening is by no means unique in its employment of the extension structure.

Example 15

Context: author speaking to student group; in an aside, reacts to some students who cannot hear

Text:

(a)	tɔ̂ŋ	khajə̀əp		maa	nâŋ khâŋnâa	
(b)		khajə̀əp	kâw ʔî̀i	maa		ʔì̀ik hâ

(a) You should move and sit up front, (b) move (your) chairs up closer.

Example 16

Context: student in discussion group speaking to author; reacting to author's autobiographical account, questions a specific point

Text:

(a)	lɛ́ɛw	thammaj thy̌ŋ plìan			là há
(b)		thammaj thy̌ŋ plìan	càak klɔɔn pen rŷaŋ sân		

(a) Then why did you come to change? (b) Why did you come to change from poems to short stories?

Examples 15-16 both contain extensions which adjust verb phrases by inserting object complement material; in the first case by the introduction of a simple nominal as direct object, and in the latter example by a more lengthy specifying complement. The distribution of pre-final and final particles is again of interest, as it provides certain access into the subjective relationships the speakers appear to associate with types of reiterative structure. In Example 16 a parallel to Example 12 is clear: the tense particles occur only in the matrix (upper) phrase, and are to be construed for the extension (lower) phrase, in very much the same way that, for example, a personal form such as /raw/ in Example 13 is stated explicitly only in the matrix phrase and then

construed in the succeeding extension phrase. Distribution of particles following this principle strongly supports the analysis proposed. Yet no claim is made for an obligatory distribution of this type. Example 15 provides an instance of the reverse distribution.

The corpus examined also shows a few instances of a structure which is the isomorphic reversal of extension-type reiterative schema.

Example 17

Context: student commenting following a lecture; mentions school rules

Text:

(a)	naj rooŋrian	hâam	sùup	burìi	ná
(b)		hâam	sùup		ná

(a) At school smoking cigarettes is forbidden, isn't it. (b) Smoking is forbidden, isn't it.

Example 18

Context: student commenting following a lecture; cites Confucian prohibitions concenred with parental mourning

Text:

(a)	hâam	paj	thîaw	lɔ̂ɔj	
(b)					← (Extended sequence concerned with proper mourning garments; see Example 63 for content.)
(c)	hâam		thîaw		

(a) No going out for fun at all;
(b) EXTENDED SEQUENCE
(c) No fun

Lit. (a) prohibit go around at-all
(b) prohibit around

Examples 17-18 exhibit close similarities, including the lexeme /hàam/ as an element in the reiterative schemas. Note that if the schemas in these examples were to interchange upper and lower lines, extensions would be defined. As it is, a reduction rather than an extension is shown by the lower lines of each schema. Reductions of this type appear to have a thematic/transitional function. In the contiguously structured "pure form" of Example 17, reductions appear to be rare. In the discontinuous pattern of Example 18 they are more frequent, particuarly when the intervening discourse material is of a clearly parenthetic nature. In this case the reduction occurs to "close the parentheses" and restore the previous course. But "closing parentheses" is also achieved through extention and other types of adjustment reiteration described below, or of course through phonological means.

Occasionally the spectre of an "inverted reduction" seems to arise.

Example 19

Context: author speaking to student group; has just finished listing factors relating to the desire for change and innovation

Text:

(a)		mii khwaamtɔ̂ŋ kaan	
(b)	phŏm kɔ̂ chŷa wâa thúk khan kɔ̂	mii khwaamtɔ̂ŋ kaan	jaa nii

(a) There are requirements; (b) and I believe everyone then has requirements like these.

This is clearly an instance of extension by the defining principles described above, but two factors set this example off somewhat from the others: (i) given the discourse context, (a) could scarcely be

considered a full-fledged matrix phrase and without (b) would stand as a non sequitur (cf. discussion of Example 4); (ii) the overt linking morpheme /kɔ̂/ occurs in (b), in fact, strangely, twice. This explicit link appears not to be between (a) and (b), but rather between (b) and previous material also referred to by the (b) deictic form /nîi/. In short, (a) is thematic/preparative in terms of message content and general discourse flow, a situation the reverse of that of Example 17. Two related examples:

Example 20

Context: robbery victim reporting theft to police; recounts events relating to a stolen watch previously mentioned

Text:

(a)		duu ..	
(b)	trùat	duu	lɛ́ɛ́w ŵaa naalíkaa nii haǎj

(a) (I) noticed, (b) checked and noticed that the watch was missing.

Example 21

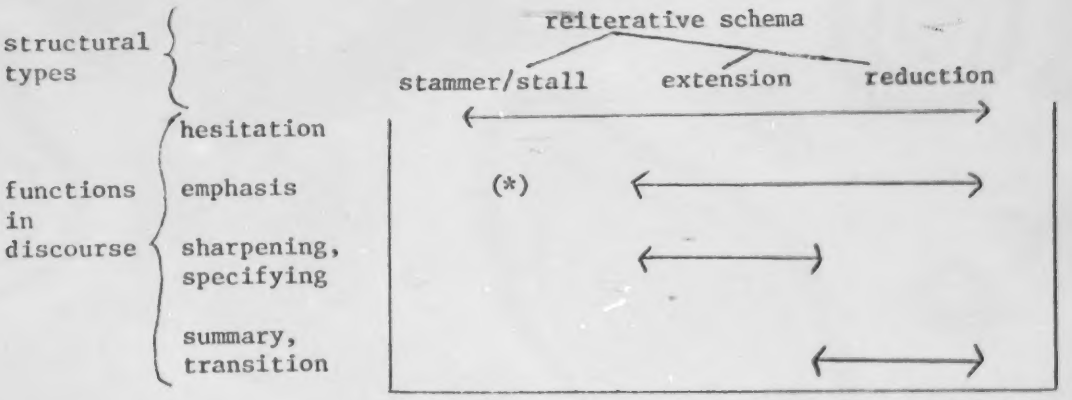
Context: woman meets junior acquaintance in chance encounter; responds to somewhat confused initial interchange

(a)		maa		
(b)		maa	thîaw	..
(c)	phaa dèk	maa	thîaw	..

Lit: (a) come (b) come around (c) lead child come around.

Possible interpretation: (a) (I) came (b) came on a trip; (c) I brought the child(ren) on a trip.

The structural and functional types discussed above can be summarized as follows:



(* cp. repetitive intensification, Example 9)

In Examples 4-21 variations in syntactic structure occur between matrix phrasal material and that of succeeding extension/reduction.

In most cases variations are endocentric:

(i) VP expanded (Ex. 8,9,10,11,13,15,16)

(ii) NP expanded (Ex. 4, 5, 12, 14)

(iia) NP/discourse transition expanded (Ex. 7)

Contextualizing reiterations in these examples predominantly employ material selected from within the endocentric unit to which extension is made. (An exception is provided by (iia), in any event a somewhat specialized type of phrase.) Furthermore in (i) contextualizing material is seen to include a main verb in each of the examples cited, and in nearly all similar corpus instances. Thus reiteration of at least main verb in extending a predicate is an important rule.

In exocentric extensions (e.g., Example 6), a main verb is also frequently present in contextualizing reiteration. Most extensions of this type are found to have a parenthetic discourse function, and often are so marked by phonological means.

Distinct from stammer/stall, extension and reduction is a type of reiterative structure characterized by parallel substitution of syntactically isomorphic units. Such isomorphic substitutions bear a similarity to endomorphic extensions discussed above, but are distinguishable formally by tighter syntactic parallelism as seen in examples below. Certain functional similarities also relate the types.

Parallel substitution is already familiar from Example 1. From that text the following schema could be derived by the method described above:

(a)	V_1	N_1	Va_1	Va_1	
(b)	V_1	N_2	Va_2	Va_2	
(c)	V_1	N_3	Va_2	Va_2	DEIX

A common function of substitution-associated reiteration is correction.

Example 22

Context: author speaking to student group; lists subjective qualities in his work (Ex. 4 immediately precedes)

(a)	prasòpphakaan	rý	kaan-	
(b)		ry	khwaam-	bandaancaj

(c) (... tɔ̂ŋ maa càak tua ʔeeŋ)

(a) experience or to ...(b) or motivation (c) (...must come from oneself)

In this example clearly the "stative" nominalization in khwaam- is to supercede the "gerundive" nominalization begun with kaan- and abandoned. Perhaps the undesirable initial selection was affected by the occurrence

of -kaan in prasòpphakaan immediately preceding. In any event the linking morpheme rý serves as contextualizing reiteration, identifying khwaam- as a substitution, here a correction, in a specified discourse context. The symbol ⟵⟵⟵ can conveniently indicate this relationship between corrected and correcting material with syntactic isomorphism.

Extending the abbreviatory conventions developed above to state reiterative schema in more linear form, we can represent Example 22:

Example 22a

Text: prasòpphakaan rý $\left\{\begin{matrix}\text{kaan-}\\ \text{khwaam-}\end{matrix}\right\}$ -bandaancaj (...)

The corpus examined contains cases of phonetic corrections made using the same type of schema, as well as hesitations.

Example 23

Context: author speaking to student group; clarifies question

Text: khun mǎaj thýŋ wàa ŋaan khǐan khɔ̌ɔŋ $\left\{\begin{matrix}[\text{phǒŋ}]\\ \text{phǒm}\end{matrix}\right\}$ nîa pen $\left\{\begin{matrix}\text{sàpcék...}\\ \text{sàpcékthiip}\end{matrix}\right\}$ (...)

'You mean m- my writing is sub- subjective (ENG) (...)

In the case of /khɔɔŋ $\left\{\begin{matrix}[\text{phǒŋ}]\\ \text{phǒm}\end{matrix}\right\}$/ the final nasal in the second morpheme was mistakenly given a velar instead of labial articulation. One might speculate that the immediately preceding group /ŋaan khǐan khɔ̌ɔŋ/, fairly dense with velars, effected an erroneous assimilation similar to the possible -kaan/ŋaan- situation in Example 22. But the formal schema of the correction is clear: the morpheme /khɔ̌ɔŋ/ serves as contextualizing reiteration. The case of / pen $\left\{\begin{matrix}\text{sàpcék...}\\ \text{sàpcékthiip}\end{matrix}\right\}$ / is formally analogous, but functionally not so clear. Whether this

represents a correction of some sort intended by the speaker or rather shows hesitation and uncertainty in the face of a polysyllabic English loanword, or even serves more complex sociolinguistic ends would be difficult to establish.

Note that the linearized substitution schemas (Examples 22a, 23) again predict a significant level of editing.

Note also items used in contextualizing reiteration (khɔ̌ɔŋ, pen) tend to be items favored in summary/stall reiteration as well as items occurring as contextualization in extensions (Examples 5, 6).

More common than phonetic or quasi-morphological corrections are substitutions designdd to make semantic adjustments. In some cases discourse context provided sufficient criteria to classify a substitution as an intended correction.

Example 24

Context: author speaking to student group; alludes to literature as a means of conveying philosophical ideas

Text:

(a)	phrɔ́ʔ wâa...	khon	sùan mâak	
(b)		nákkhǐan	sùan mâak	mák ca sadɛɛŋ ʔɔ̀ɔk (...)

(a) because people generally, (b) writers generally express themselves (through the literary medium).

Typically the correction function is less well-defined and overlaps with other adjustment categories, particularly sharpening and specifying discussed above under extensions (Examples 12-16).

Example 25

Context: author speaking to student group; begins story of his father, which later tacitly assumes status of latter to be education officer, not simply teacher.

(a)	phɔ̂ɔ	phǒm	kɛɛ	pen	khruu
(b)				pen	========== sỳksǎa

(a) My father was a teacher, (b) was an education officer.

Here the situation is one of semantic sharpening within a classificatory taxonomy, that of educational personnel distinguished in the Thai school system. The term /sỳksǎa/ is a colloquial abbreviation for /sỳksǎathíkaan ʔamphɔɔ/ or /sỳksǎathíkaan caŋwàt/, 'district/provincial education officer', and as such would be correctly identified by the audience of university students, although not by many other Thai groups. The speaker's father at one time had probably been a teacher, and so Example 25 is not so much a correction of fact as of taxonomic emphasis with reference to role in the story which is to follow. We symbolize semantic adjustment accomplished through substitutive reiteration by ==========. In some cases textual cues are inadequate to distinguish correction (~~~~~) from adjustment, functions which overlap as suggested above.

Example 26

Context: school director addressing auditorium audience; mentions limitations of time available for students to practice for a public performance

Text:

(a)	raw	ca	hâj	cháj	weelaa	phiaŋ	mâj	kìi	khráŋ
(b)		ca		chaj	weelaa	phiaŋ	======== sàk	======== hâa	khráŋ

khyy mǎajkhwaam wâa

(a) We'll let (them) have only a few times (to practice); (b) that is to say, (they'll) have only (perhaps) five times.

Example 27

Context: student commenting following a lecture; expounds point in Buddhist philosophy

Text:

(a)	manut raw tɔ̂ŋ	mii		
(b)		mii ...	sɔ̌ɔŋ sùan	châj máj há
(c)		mii	wátthù?	
(d)		mii	râaŋkaaj	kàp cìt

(a) We humans must have (b) have.. two parts, mustn't we, (c) -have matter, (d) have a body, along with a spirit.

Examples 26 and 27 are similar in employing contextualized substitution to make more specific the information initially presented. In Example 27 a hierarchical structure occurs: (c) + (d) is to be considered the specification of (b); the form /râaŋkaaj/ in (d) on the other hand is in parallel relationship to /wátthù?/ as a specification or similar substitutive adjustment: 'matter, i.e., the body...' The substitutions are thus not of equal rank in the text, a fact not entirely clear in the schematic representation. In this example phonological cues as well as the transition /châj máj há/ aid in confirming the hierarchical structure. Note that the verbal /mii/ serves as contextualizing reiteration for both ranks, and that it also occurs in (a) + (b) with pause as a reiterative hesitation.

The following example shows spacial-positional sharpening.

Example 28

Context: author speaking to student group; narrates story of bus ride

Text:

(a)	lɛ́ɛw	nâŋ jùu	klâj klàj	(a) then (the official) sits close by, (b) sits right next (to me).
(b)		nâŋ jùu	khanàap	

Some substitutive adjustments appear motivated by sociolinguistic role relationships involving personal terms or titles. Occasionally a circumlocution is substituted.

Example 29 (Context = Ex. 28)

Text:

(a)	tɛ̀ɛ thâa	dèk	kwàa [#] (b) phǒm mâj thalŷŋ	ná ..
(c)		khon thîi mii ʾaajúʾ nɔ́ɔj	kwàa [#] (d) phǒm mâj thalŷŋ	dûaj

(a) But if (someone's) a junior, (b) I am not arrogant (c) those who are younger (than I), (d) I am not arrogant with (them).

The lexeme /dèk/ is rarely used as a verb, as in (a), but nonetheless would pose no interpretive problem; rather it is more likely that an adjustment was made to relieve somewhat the negative connotation this lexeme would have if applied to the immediate audience. Perhaps at first no such specific application was intended, but after (a) had been uttered (note pause at terminus of (a)), the possibility of application to the immediate audience may have become salient, and the mollifying (b) was attached through the substitutive reiteration mechanism. This interpretation however must remain a speculation, perhaps partly because the immediately preceeding segment of the discourse is inaudible on the tape.

Example 30

Context: author speaking to student group; discusses broad issues in writing

Text:

(a)	kaan-	cháj ..			
(b)		cháj	cintanakaan	thaaŋ	
(c)				thaaŋ	thɔ̂ɔj kham
(d)				thaaŋ	phasǎa

(a) ..using.. (b) using.. attention to (c) to wording, (d) to language.

Example 31

Context: customer discussing airline ticket with sales representative; expresses concern over tax

Text:

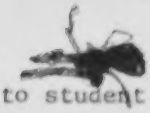
(a)	tɛ̀ɛ khwaamciŋ	ʔâj	hɔ̂ɔnooluuluu	nîi		
(b)		ʔâj	haawaaj	nîi	man	kɔ̂ plɛ̀ɛk

(a) But actually this darn Honolulu (tax), (b) this darn Hawaii, it's peculiar.

From a strictly logical point of view, Examples 30 and 31 appear to represent the converse of specification. Taxonomic shift is toward a loose superordinate. But increasing specificity is not to be confused with taxonomic adjustment in general, particularly in conversation. In Thai spontaneous speech reference regularly shifts to superordinate levels once initial identifications have been established; i.e., given certain constraints on anaphora, succeeding references to an established unit require fewer semantic features. Substitutions in Examples 30 and 31 are not anaphoric, but superordination of a similar sort occurs. Functional pluralism is again confirmed: repetitive and pausal hesitation present in Example 30 suggest informally characterizing the reiterative adjustment in (c) - (d) as "groping for an acceptable expression", etc.

Sometimes this process might be considered "softening" (cf. also Example 29).

Example 32



Context: author speaking to student group; complains of no free time

Text:

(a)	hěn phŷan fúuŋ	paj	thîaw	píkník	
(b)		paj		ʼaraj	kan

(a) I see my friends all going off on a picnic, (b) going off on something together.

Probably the reiterative substitution in Example 32 is related to treatment of English loans (here /píkník/) more generally. The borrowing of English nouns and occasionally items of other form classes and even longer English constituents is by now[28] widespread among urban educated Thais. Although no study of this phenomenon is available, it is safe to ascribe considerable sociolinguistic importance to this process for the reasons proposed earlier in this study: loans of the type in Examples 31-35 presuppose shared ethnosemantic experience of high degree and hence signal tight group structure (solidarity). Strictly speaking it may not even be necessary (or intended) that loans be understood on first hearing; the outer discourse environment simply includes the right to use them. They are often "glossed", sometimes into, sometimes out of, Thai equivalents. Such glossing further contributes to sociolinguistic signalling, allowing the speaker to assert gently a certain in-group superiority.

Example 33

Context: author speaking to student group; cites experience as raw material for writing

Text:

(a)	man	pen	fɛ́ɛkméen		ʔôɔ
(b)	man		==========		
(c)	man				
(d)	man	pen	sùan prakòɔp	an	
(e)				an	nˋŋ

(a) They're fragments (ENG), uh (b) they (c) they (d) they're constituent CLF (e) CLF one.

Example 34

Context: student commenting following a lecture; discusses recent East-West relations

Text:

(a)	hâj kɔ̀ɔt		baaláans	ʔɔ́p	thəlîɔ
(b)		pen	==========	==========	==========
(c)		pen			khwaamklua
(d)			sǒmdun	hɛ̀ɛŋ	khwaamklua

(a) (Weapons were stored) to cause a "balance of terror" (ENG.) (b) of (c) of fear, (d) a balancing scale of fear.

Example 35

Context: author speaking to student group; discusses meaninglessness in social relationships (text of Ex. 11 follows from (d)).

Text:

(a)	kaan-	titt͡ɔ͡ɔ	
(b)	kaan-	kh͡ɔ͡ɔmmuníkhèet	
(c)	kaan-	thîi ca líip métsèet	ʔaraj kan jàaŋníaʔ
(d)		man ..	
(e)		man ..	
(f)	baŋthii	man	
(g)		man	mâj mii khwaammǎaj

(a) To communicate, (b) to mitteilen, (c) to lassen eine Botschaft (or) something like that, (d) it (e) it (f) sometimes it (g) it has no meaning.

(German glosses are introduced to suggest how foreign material is inserted into native syntactic structure. /líip métsèet/ ENG. "leave message".) The direction of glossing in Example 34 appears to be:

Thai	→	generally used and understood English	→	arcane and probably not understood English
(a)		(b)		(c)

Turning once again to Example 1 we note a contrast between its schema and those of Examples 22-35, all of which are cases of parallel substitution with reiterative contextualization, but range functionally through correcting, sharpening, and glossing. Functional correlates of Example 1 clearly involve notions of systematic listing, although formal structural characteristics are in common with substitution schemas previously cited.

Substitution then can conveniently be retained as a formal-structural term, and applied to Example 1 in the sense that syntactic frames are held constant as content material is changed; but the new material need not be intended as a cancellation or replacement.

Functionally, we classify reiterative substitution of the Example 1 variety as parataxis, or more specifically as paratactic enumeration, and indicate this relationship by ⌒⌒⌒⌒ in reiterative schemas. Example 1 is thus:

mii	tỳk	maj	màj	
mii	bâan	sŭaj	sŭaj	
mii	sŷaphâa	súaj	sŭaj	nìi

Example 36

Context: student commenting following a lecture; discusses increasing the spiritual faculties (see Ex. 13)

Text:

(a)	sŷŋ	tɔ̂ŋ	ʔaasăj kaanbampenphian baaramii	mâak
(b)		tɔ̂ŋ	cháj weelaa	=========
(c)		tɔ̂ŋ	loŋ thun	mahăasăan

(a) which needs involvement in much ascetic discipline, (b) needs the spending of time, (c) needs making a tremendous investment.

Occasionally paratactic enumeration is found in tandem with other functional types, e.g., hesitation as below. In such cases one might challenge the enumerative classification and prefer stall-related sharpening. But problem cases in the corpus examined are few, and so the notational distinction will be retained, i.e., ==== vs. ⌒⌒⌒⌒. Note that in Example 36 both subtyped occur, and that $\left\{\begin{matrix}\hat{\text{m}}\text{aak} \\ \text{mahăasăan}\end{matrix}\right\}$ as well as being an adjustment in its own right is probably to be considered "semi-reiterative" contextualization working in league with tɔ̂ŋ to produce a tightly-linked paratactic enumeration of VP's.

Example 37

Context: author speaking to student group; discusses methods in writing

Text:

(a)	tɔ̂ŋ	chaj weelaa	thîi ca- ..	
(b)		cháj weelaa	thîi ca-	khít
(c)			thîi ca-	rúusỳk

(a) (One) needs to spend time to.. (b) to spend time to think, (c) to feel.

Some enumerations are less tightly organized than others, a function of how dense the contextualizations are. In Example 38 nominals of equal rank are listed in a fairly loose manner through parts of a reiterated topicalization structure. Note also loose linking provided by temporal material in the predicate.

Example 38

Context: school director addressing audience; shifts attention to immediate surroundings

Text:

(a)		ʔaakhaan		nii	phŏm	sâaŋ maa	hòk	pii		
(b)		sanǎam	tàaŋtàaŋ							
(c)		sûam		nii						
(d)		sýy thîi	tàaŋtàaŋ	nii			hòk	pii	kwàa ca dâaj	
(e)								pii	la	nit
(f)								pii	la	nɔ̀ɔj
(g)	sùan	hŏɔ prachum		nii	phŏm					
(h)	kô khəəj dâj sanǎə(...)									

(a) These buildings I (had) built in six years; (b) the various playgrounds, (c) these lavatories, (d) to buy these various lots took six years (e,f) a little bit year by year; (g) as for this assembly hall, I (h) have made the suggestion (... NEW MATERIAL NOT IN ABOVE SCHEMA)

A particularly common type of listing in Thai parallels classical hendiadys. Paraphrase with a single VP and conjunctions is possible but felt by native speakers to be somewhat awkward.

Example 39

Context: student commenting following a lecture; cites plight of farmers during wartime

Text:

(a)	mâj	tham	râj
(b)		tham	naa

(a) (They) didn't work dry fields (b) (or) work wet fields.

Example 40

Context: student commenting following a lecture; summarizes his interpretation of early Christian ethics

Text:

(a)	khraj	ca khamooj	mia	
(b)		ca khamooj	khɔ̌ɔŋ	paj

(c) kɔ̂ jók hâj kháw paj dûaj..

(a) (If) someone would steal (you) wife, (b) would steal all (your) possessions, (c) just hand them over to him.

Infra-phrasal linkage of explicit nominal lists frequently follows the form:

$$(m...)\ \underline{R}\ \begin{Bmatrix} x \\ y \\ z \\ \dots \end{Bmatrix}\ (m...)$$

Thus when listing sets of people, the morpheme /phûak/ 'group' often serves as R while $\begin{Bmatrix} x \\ y \\ z \end{Bmatrix}$ are substituted as modifiers to R and bear the content of the list. In another example in the corpus, a school

official lists students of various grade levels with R = /pɔɔ/, a common abbreviation for /prathǒm/ 'elementary (grade)' understood by his audience. The substituted items are simply numbers. How widespread this listing schema is across languages is an empirical issue; the tendency in English at least seems to call for more restricted use of reiterating contextualizing elements (R), with suprasegmental features, particularly pitch contour, accomplishing the contextualizing function.

Paratactic enumeration schemas sometimes show hierarchical relationships:

Example 41

Context: student commenting following a lecture; describes early Athenian democracy

Text:

(a)	thúk khon	lŷak tâŋ				
(b)	thúk khon	mii	sít			
(c)		mii	sěerii	ca	khít	
(d)				ca	phûut	
(e)				ca	tham	?araj kɔ̂ dâj

(a) Everyone voted; (b) everyone had the right (c) had the freedom to think, (d) to speak, (e) to do anything at all.

Example 42

Context: author speaking to student group; mentions his shift from writing poetry to prose

Text:

(a) thàa tham ʾaraj tɛ̂ɛ phiaʔ | jàaŋ nyŋ

(b) | jàaŋ diaw

(c)	lɛ́ɛw	man	naaj	
(d)		man	bỳa	
(e)		man	jàak	plìan
(f)			jàak	lɔɔŋ ʾaraj màj ..

(a) If (one) does only one thing, (b) a single thing, (c) then one tries, (d) one is bored, (e) one wants to change, (f) wants to try something new.

The hierarchies can be shown by slightly extending the abbreviatory representation:

Example 41a

Text: thúk khon { $VP_{(a)}$ / mii { $NP_{(b)}$ / $NP_{(c)}$ ca { $V_{(c)}$ / $V_{(d)}$ / $VP_{(e)}$ } } }

Example 42a

Text: man { $Va_{(c)}$ / $Va_{(d)}$ / jàak { $V_{(e)}$ / $VP_{(f)}$ } }

A final type of paratactic enumeration involves contrast. In this type frequently negative or disjunctive relationships are combined to strengthen a proposition by denying its converse, similar to classical litotes.

Example 43

Context: student commenting following a lecture; summarizes Western scientific achievements

Text:

(a)	kaalilee'oo khít bɔ̀ɔk		lôok	man	klom	
(b)		mâj chaj	lôok		bɛɛn	

(a) Galileo thought and said the earth, it is round, (b) not a flat earth.

Here a negating expression, /mâj chaj/, is introduced with an a... ym, and reiterative contextualization is given, /lôok/. The paratactic contrast is of course prompted by the semantic context of the passage, which stresses Galileo's break with the past.

Examples 44-45 below show more involved contrasts. The schemas are contiguous in text, loosely linked by recurring /man/.

Example 44

Context: student commenting following a lecture; gives metaphorical treatment to spiritual question

Text:

(a)	tɛɛ	citcaj nîa'	man				
(b)			man	mǔyan		khon	ŋɔ̂ɔj
(c)			man	pen			
(d)				pen			
(e)				pen	nákpràat		
(f)	tɛɛ			pen		khon	ŋɔ̂ɔj

(a) But this spirit, it (b) it's like a lame person; (c) it is (d) is (e) a philosopher, (f) but is a lame person.

Example 45

Context: (= Ex. 43)

Text:

(< > indicates material marked phonologically as rejected)

(a)	thâa plɔ̀ɔj < pen	man >							
(b)		man	dɔɔn ..						
(c)		m-							
(d)		man							
(e)		man		thɤ̌ŋ	chá:a				
(f)	tɛ̀ɛ̂ wâa ŋajŋaj kɔ̂			thɤ̌ŋ[ə]..					
(g)		man							
(h)		man			chá:a	nɔ̀ɔj			
(i)	tɛ̀ɛ̂ wâa ŋajŋaj kɔ̂		mâj	thɤ̌ŋ			ka[ṕ]		taaj
(j)								tɔ̀k hɛ̌w	taaj

(a) If (you) release (it) is it (b) it walks..; (c) i- (d) it (e) it arrives late (f) but anyhow (it) arrives..; (g) it (h) it's a little late (i) but anyhow it doesn't arrive (of the point of) dying, (j) falling over a cliff and dying.

Expansion as well as paratactic enumeration is used in the contrasts above. The disjunctive /tɛ̀ɛ̂/, the negative /mâj/, and loose semantic contrasts between 'philosopher'/'late person/ and 'arrive late'/ 'arrive' all enter into the complex, along with hesitation-related reiteration. Contextualization is achieved by the normal reiterative means, featuring especially the forms /man/, /pen/, and the verbal /thɤ̌ŋ/, which in (i) of Example 45 has a somewhat different semantic reading from its occurrence in (e) - (f).

Other contrasts, such as in verbals /paj ~ maa/, /khâw ~ ʔɔ̀ɔk/ and

the deictics /nii ~ noon/ are similarly used, frequently in complex schemas with other types of reiterative linking.

Example 46

Context: author speaking to student group; complains of work schedule

Text:

(a)	hŭa láan	khâw	paj	thúkthii					
(b)	phuŋ	ʔɔ̂ɔk	maa	thúkthii					
					(c) pen khon		khít	mâak	
					(d) pen khon	thîi	mútthalúʔ	ŋâaj	ʔaraj
					(e)		khròot	ŋâaj	ʔaraj

(a) (My) head gets balder and balder; (b) my belly sticks out more and more; (c) (I'm one who thinks a lot, (d) one who's easily moody or something, (e) easily angered or something.

Example 47

Context: student commenting following a lecture; summarizes theory of controlled education

Text:

(a)	manút raw		khuan ca..	baŋkháp	fyk	
(b)		pen khânkhân				
(c)		pen tɔɔ ntɔɔ n				
(d)		kìi khùap	tôŋ	baŋkháp		jàaŋ nóon
(e)		kìi khùap		baŋkháp		[ŋíi]

(a) We humans should be forced to be trained (b) in levels, (c) in stages; (d) for so many years need to be forced in that way, (e) for so many years forced in this way.

Additional examples of reiterative schema with mixed structure and/or function follow below.

Context Summary, Examples 48 - 49

(i) author speaking with student group — Ex. 48 - 52, 58

(ii) student commenting following a lecture — Ex. 53 - 57, 59

Example 48

(a) tòkloŋkan sá ..

(b)	tham	sŏnthísǎnjaa		ʔaraj ..
(c)		sŏnthísǎnjaa	bɛɛn tnríitîi rý	ʔaraj

(a) Agreed, then. (b) Make an agreement or something.. (c) a ban treaty (ENG) agreement or something.

Example 49

(a)	manût kɔ̂ tỳynten..jindii	naj	khɔ̌ŋ mâj		
(b)		naj		cìtcaj thîi tua	
(c)		naj	khwaamkâwnâa thaŋ	cìtcaj thîi tua	khónphóp

(a) Mankind was excited..delighting in a new thing, (b) in the spirit that they themselves, (c) in the advance ent of the spirit that they themselves had discovered.

Example 50

(a)	phɔɔ	man		jîŋ	biip	
(b)		khan	kɔ̂	jîŋ	khít	
(c)	lɛ́ɛw	nákwítthajaasàat	kɔ̂	jîŋ	khít	máak khŷn

(a) The more they were oppressed (b) the more then people thought (c) so scientists then thought ever more and more.

Example 51

(a)	man						
(b)	man						
(c)	man	kɔ̂	mâj ..				
(d)	man	kɔ̂	mâj	kɔ̀ɔt ..	khon	thîi mii panjaa	
(e)			mâj	kɔ̀ɔt	khon	chalàat	khŷn [màa]

(If the school director hadn't urged us) (a) it (b) it (c) it then wouldn't.. (d) it then wouldn't (have) produced .. people who had knowledge, (e) wouldn't have produced intelligent people.

Example 52

(a)	mii khon thîi	pen	ʔeelìit			
(b)		pen				
(c)		pen	phûunam sáŋkhɯm			
(d)		khyy		phûak	praam	
(e)			kàp	phûak	kasàt	nîaʔ

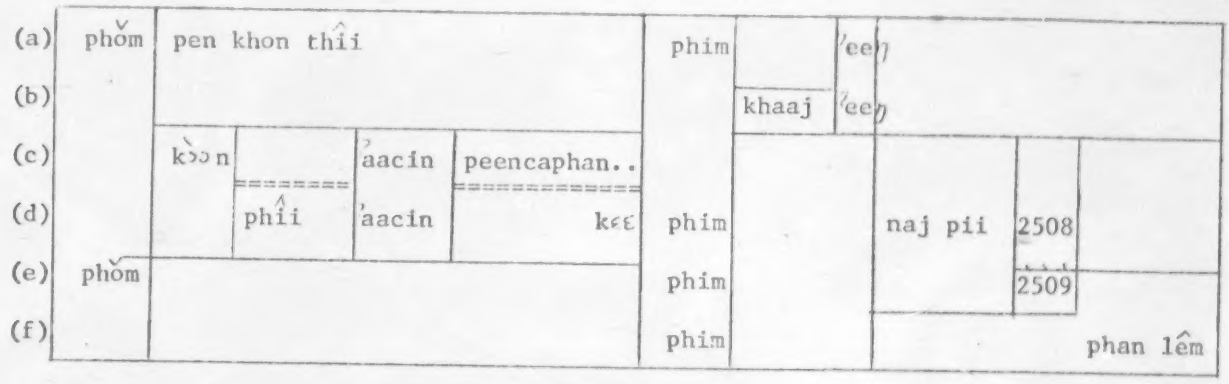
(a) There were people who were the elite (ENG), (b) were (c) were the leaders of society, (d) that is, the Brahmin class (e) and the Ksatriya class.

Example 53

(a)	sìŋníi	phǒm	khít		jàaŋnán	dûaj
(b)		phǒm	kɔ̀ɔt	khwaamrúusỳk		
(c)		khɔɔj	kɔ̀ɔt	khwaamrúusỳk	jàaŋnán	

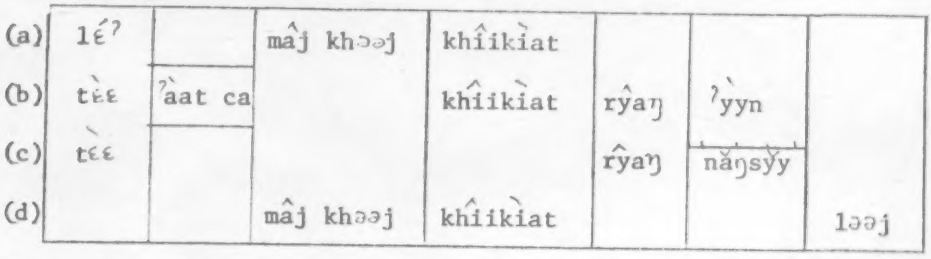
(a) On these matters I think that way too; (b) I have feelings, (c) have had feelings that way.

Example 54


(a) phǒm pen khon thîi phim ʔeeŋ
(b) khaaj ʔeeŋ
(c) kɔ̀ɔn ʔaacin peencaphan..
(d) phîi ʔaacin kɛɛ phim naj pii 2508
(e) phǒm phim 2509
(f) phim phan lêm

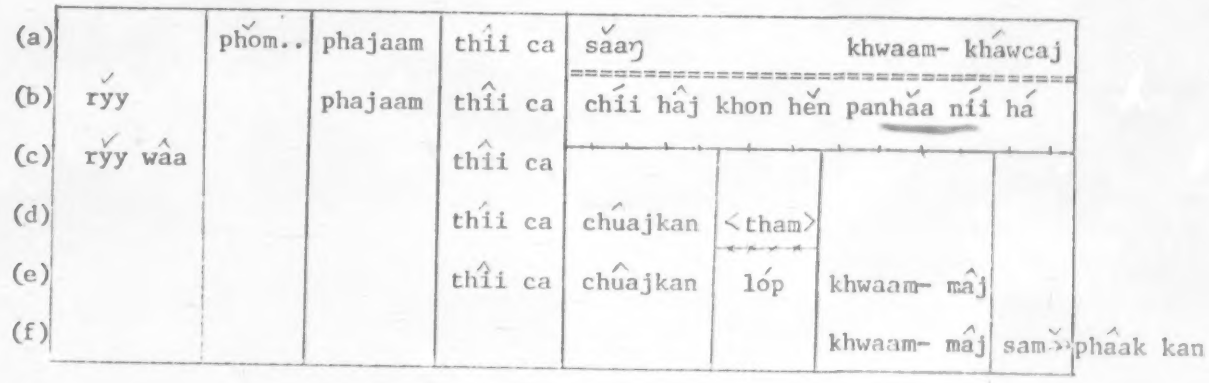
(a) I was the one who published myself (b) sold by myself (c) before Acin Pencaphan. (d) Brother Acin he published in the year (B.E.) 2508; (e) I published in 2509, (f) published a thousand volumes.

Example 55



(a) And I've never been lasy (at writing), (b) but (I) might be lazy about other things, (c) but about writing (d) (I've) never been lasy at all.

Example 56


(a) phǒm.. phajaam thîi ca sǎaŋ khwaam- khâwcaj
(b) rýy phajaam thîi ca chíi hâj khon hěn panhǎa níi há
(c) rýy wâa thîi ca
(d) thîi ca chûajkan <tham>
(e) thîi ca chûajkan lóp khwaam- mâj
(f) khwaam- mâj sam- phâak kan

(a) I.. try to establish understanding (b) or try to point these problems out for people to see, you know, (c) or else to (d) to help them make (e) to help them erase ine- (f) inequality. (S. 308)

Example 57

(a) naj rája nán ruusyk wâa
(b) ryy wâa ʔaat ca
(c) tɛɛ

(a)	pii	lá			sɔŋ	lêm
(b)				thyŋ	sâam	lêm
(c)	pii	nyŋ	jaŋ mâj khəəj	thyŋ	sâam	lêm

(a) During that time it seems (I published) two volumes a year (b) or it might reach three volumes (c) but it has never yet reached three volumes in one year. (Kh. 112.)

Example 58

(a)		phûak						...
(b)		phûak..						
(c)		phûak	phɔ̂ɔ khâa					
(d)		phûak	phɛ̂ɛt					
(e)		phûak	==========	ʔaraj	nii			kàɔt
(f)			hăa líaŋ săŋkhom	ʔaraj	[ŋíi]		..	kàət
(g)	lɛ́ɛw	phûak	waana s-suut					
(h)	rý wâa	phûak	thâat					
(i)		phûak		ʔaraj		man	..	
(j)		phûak						...

(a)			
(b)			
(c)			
(d)			
(e)	maa càak	thɔ́ɔŋ	
(f)	maa càak	thɔ́ɔŋ ..	
(g)			
(h)			
(i)	maa càak	tiin	nà
(j)	maa càak	khîilép	phûut ŋájŋâaj

(a) (The) class (b) class.. (c) class of merchants, (d) class of doctors, (e) such classes as these, were... born from (Brahma's) stomach, (f) whatever gave nurture to society..was born from his stomach;.. (g) and the class of Sudras (h) or the class of slaves, (i) whatever class, they.. came from his feet, see, (j) came from his toenail filth, to put it bluntly.

Example 59

(a)				pen	khwaamrúusỳk..
(b)	phŏm khít wâa	banthii ..			
(c)		sìŋníi	man		
(d)		sìŋníi	man		
(e)			man ..		khwaamrúusỳk ..
(f)			man	pen	khwaamrúusỳk
(g)					khwaamrúusỳk
(h)				pen	khwaamrúusỳk
(i)				pen	khwaamrúusỳk
(j)	lέ?	sìŋlàw níi	man-		
(k)			man ..		
(l)	phŏm khít wâa		man		
(m)			man		
(n)			man		khwaamrúusỳk
(o)					khwaamrúusỳk (...)

(a)						
(b)						
(c)	mâj châj phrɔ́..					
(d)	mâj châj phrɔ́ wâa ʔɔɔ ʔɔɔ ɔɔ "roomɛɛntìk" rўy ʔaraj					
(e)						
(f)	khlâajkhlâaj	khon	plèɛk nâa ..			
(g)	bèɛp	khon	thâ.. ʔəə [EXTENDED EPISODE, C.15 sec.]			
(h)	"ʔaaloonèet"					
(i)		wâa tua ʔeeŋ	phìt phèɛk	kàp	sǎŋkhom	
(j)						
(k)						
(l)	phŷŋ..					
(m)	kamlaŋ kɔ̀ɔt	khŷn ná há		naj	sǎŋkhom	rûn màj nìa?
(n)			phìt phèɛk	pɪj càak	sǎŋkhom	
(o)	thîi	wâa tua ʔeeŋ	mâj daj pen suan khɔ̌ɔŋ		sǎŋkhom	

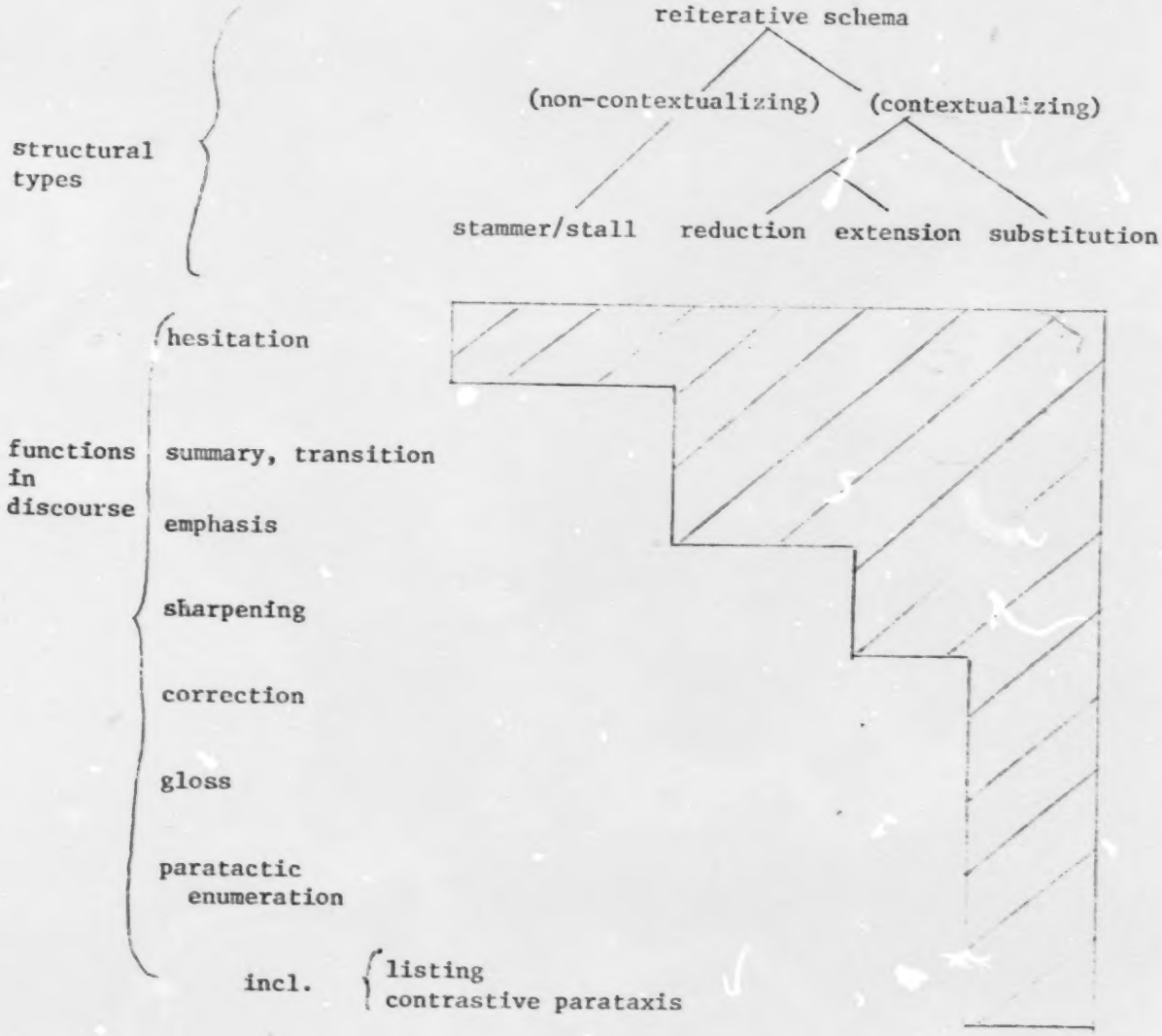
(a) It's a feeling..(b) I think maybe..(c) this matter, it's not because..(d) this matter, it's not because, uh, uh, uh, (of being) romantic or anything, (e) it..feeling.. (f) it's a feeling like being a strange person, (g) a feeling of being a person who, uh [EXTENDED EPISODE, 'is confused in an insane asylum', etc.] (h) is a feeling of aloneness (ENG) (i) is a feeling that oneself is different from society, (j) and such a thing, it--(k) it..(l) I think it has just..(m) it is just coming to be, you see, in the society of the young here, (n) it's a feeling of being different from society, (o) a feeling that oneself is not a part of society (...)

Constituent Undergoing Substitution	Contextualizing Reiteration	
Nominal	Other morpheme(s) in affected NP	
	topicalizing deictic /níi/	(Ex. 31,37, 57)
	qualifiers	(Ex. 1, 24)
	common heads in compounding	(Ex. 30,51,54,57)
	main verb	
	general	(Ex. 32,33,40,50 54, 58)
	/mii/	(Ex. 1, 27,41)
	/pen/	(Ex. 25,47,52)
	/man pen/	(Ex. 33, 44)
	entire predicate	(Ex. 58)
	subject + predicate	(Ex. 29; cp.33, 44)
Verbal	Other morpheme(s) in affected VP	
	auxiliaries	
	/tɔ̂ŋ, jàak, jîŋ/	(Ex. 36,42,50)
	modal /ca/	(Ex. 41)
	result marker /thîi ca/	(Ex. 37, 56)
	qualifiers, quantifiers	(Ex. 36, 46)
	subject NP	(Ex. 41,42,43,46,59)
	nominalizer /kaan-/	(Ex. 35)

In addition, quantifiers are substituted with classifier (Ex. 57) or more extended material (Ex. 26) reiterating; verbal contextualization is given for deictic (Ex. 47) and adverbial (Ex. 28) substitutions;

adverbal contextualization is given for compound $\frac{NP_1 + VP_1}{NP_2 + VP_2}$ substitution (Ex. 46).

The structure/function classification of reiterative types above can be ammended to include data from Examples 22-59. Shaded areas indicate presence of particular functional categories.



Two general problems in the classification of reiterative schema remain.

The first involves the issue of scope of repetition. In the previous examples most vertical linkages have involved immediately contiguous discourse material; but in some cases linkage has been postulated for non-contiguous reiterations. Thus in Example 11 the rather indefinite subject nominal /man/ appears to be sharpened by the contextualized insertion of a complete NP + VP sequence with topicalizing marker /nìa²/. This sub-structure of Example 11 is represented more clearly below:

Example 11b (a-g)

Context: (Example 34)

Text:

(khun^{2} khəəj hěn) baŋthii $\left\{\begin{matrix} \text{man}^{3} \\ \text{khon kháw phûutkan thâŋ chûamooŋ nìa}^{2} \end{matrix}\right\}$ mâj mii khwaamǎaj (lǎaj)

As was noted above previously abbreviated representations like Example 11b fail to capture the exact patterning of the full reiteration schemas involved, but summarize the most important structural and functional characteristics. Actually the initial statement of the schema for Example 11 was also somewhat abbreviated (e.g., the contextualizing function of reiterated element baŋthii was ignored for clarity).

Now the analysis proposed in Example 11b is justified quite directly: initial statement of subject nominal /man/ was clearly felt by the speaker to be too vague, and was superceded by a more specific topicalized NP + VP sequence indicating what indeed the speaker felt "had no meaning at all." Both an adverbial, /baŋthii/, and an extended predicate serve as reiterative contextualizations.

But other cases of NP + VP sequences intervening between supposed instances of contextualizing reiteration are not so clear. In Examples 18 and 59 even though extended sequences of non-connected material (excepting through semantic means) intervene, still encompassing schemas are postulated. Clearly a more rigorous limitation of the schema representation is called for: otherwise any repeating material in a discourse would be potentially "schematic." This is clearly not the case, as is seen readily with high-frequency morphemes. It would not be productive to consider every instance of /mii, pen, m̂aj/ etc. as linked to every other instance in a discourse; to do so would be to negate the effectiveness of reiterative schema as proposed as an effective tool in the analysis of discourse structure.

The answer to this objection lies in three factors: (i) text frequency of reiterated material; (ii) length of reiteration; (iii) temporal span of intervening material. A well-defined reiteration schema will then result from minimization of (i), and (iii), and maximization of (ii). A possible fourth criterion involves phonological marking, especially salient in "asides" or parenthetic comments which are frequently marked as closed by a return to "normal" intonation along with reiterated material to restore prior context. Phonologically and reiteratively marked parenthesis is fairly common in the corpus examined.

Probably a weighted combination of these variables cooccurring in a complex function would be necessary and sufficient to define well-formedness for a given reiterative schema. In the corpus examined when an informal semantically-based approximation to this function is applied, most questions of well-formedness are taken care of.

For example, the longest parenthetic aside in the corpus examined is a sequence of 12 seconds, including one interchange across speakers, but both phonological and reiterative devices clearly set off the 12-second interlude:

Example 60

Context: author addressing student group; prepares to discuss sensitive subject raised in question, but wonders in aside whether the tape recorder present should be turned off

Partial Text:

(a)	khyy^{2} sǎahèet (daŋdəəm) nǐi	normal pitch, intensity
(b)	12 SECOND ASIDE 'should this part be recorded?'	lowered pitch, intensity
(c)	khyy sǎahèet dəəm nǐi ná há (...)	normal pitch, intensity

(a) That is the original reason (b) ASIDE (c) That is, the original reason, was (...) you know (...)

(c) is a reduction of (a), and possibly at the same time an expansion, if the final particles are to be considered. The reduction (/expansion) serves to restore the flow of discourse to the interrupted point at (a), along with phonological cues indicating terminus of parenthesis. Probably the presence of both marking devices together to indicate the (b)/(c) transition is directly related to the rather considerabl temporal span (12 seconds) of intervening material. In shorter asides less marking would be needed, at least to judge from relevant corpus examples. Thus in Example 6 a semi-parenthetic VP (d) is inserted into the discourse by the expansion mechanism, but (d) is only 2.2 sec. in duration, is a single phrase, and is more directly

related to the discourse flow at (a) than is the case in Example 60. Not surprisingly then contextualization in Example 6 is the single morpheme /pen/ and no salient phonological cuin occurs.

In Example 59, (g), a lengthy (15 sec.) excursus, is inserted into a succession of qualifiers to the "core" morpheme /khwaamrúusỳk/. The excursus is ostensibly an example to explain a particular stage (f) in the unfolding of qualifiers. It is set off by an increase in speech rate (4.1 morphemes/sec. vs. 2.9 morphemes/sec. for the schema proper) and decrease in hesitation forms. The impression is one of a temporary increase in coherence and the availability to the speaker of a small unit of highly-organized linear semantic material. When this material has been completed, there is a return to the schema, which in this example is clearly a device to link "vertically" a succession of loose and rather nebulous qualifiers attempting to explicate an elusive vaguely-defined emotional state, /khwaamrúusỳk/.

Both parenthesis and excursus suggest an important discourse principle: for certain purposes a reiterative schema may be temporarily suspended, giving way to material of a somewhat different order, and then reinstated. The 12- and 15-second insertions above appear to represent the temporal maximum for such units in the corpus examined, but wider sampling would be needed to formulate more precisely the principles involved.

At the other end of the temporal scale, minimal insertions are very common (e.g., Example 6), and merge into constituents in reiterative schemas. The question of constituent vs. inserted status, lacking phonological or other marking, appears to involve a gradient scale rather than a system of binary distinctions.

Example 61

Context: author speaking to student group; relates story about his father (follows directly from Example 25)

Text:

(a)			kɛɛ	sɤ̌y	naŋsɤ̌y				khâw	bâan	jɛ́ʔ
(b)				sɤ̌y		phŷa	thîi ca cɛ̀ɛk				
(e)	thiiníi	mŷa		sɤ̌y							
(f)		kɔ̀ɔn					thîi ca cɛ̀ɛk				
(g)			kɛɛ						tɔ̂ŋ ʔaw maa	bâan	
(h)		kɔ̀ɔn									

(c) càaj paj taam hɔ̌ŋsamùt tàaŋtàaŋ khɔ̌ɔŋ roongrian

(d) thîi jùu tâj baŋkhápbanchaa khɔ̌ɔŋ tua

(a) He bought lots of books (and) brought them home; (b) (he) bought them to pass out (c-d) at the various libraries in schools that were under his jurisdiction; (e) now when he bought (them) (f) before (he) passed them out, (g) he had to bring them home (h) beforehand.

Example 62

Context: student commenting following a lecture; cites secondary school rules and desire for new experiences

(a)			man		thót-	lɔɔŋ	
(b)		ʔáj khon thii..	man				
(c)		ʔâj khon thii	man				
(f)			man				
(g)			man				
(h)			man		mâj jàak ca	lɔɔŋ	maa lɛ́ɛw
(i)	phrɔ́ʔ		man			lɔɔŋ	

(a) hâj sìt thîi ca | sùup | | dâj

(b) | | sùup | ʔaraj |

(a)They try it out; (b) guys that they, (c) guys that they, (d) give the right to smoke, (e) to smoke something, (f) they, they, they don't want to try it (i) because they've tried it already.

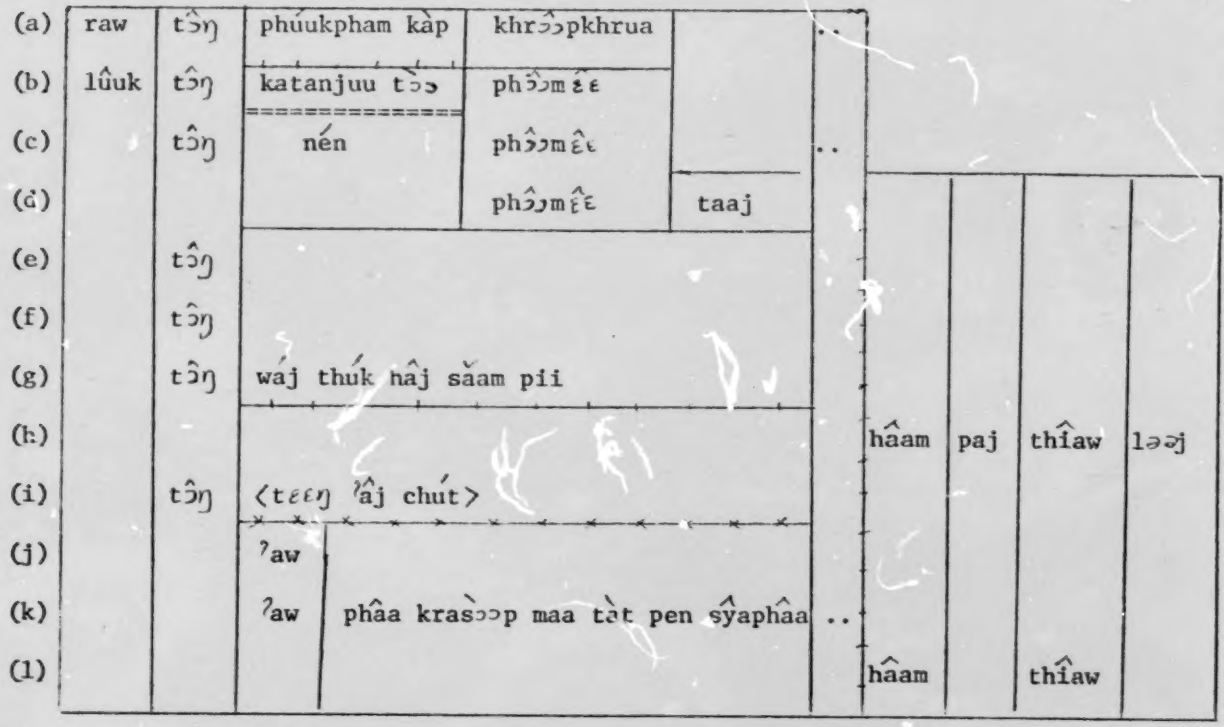
Example 61 shows the presence of about 4 seconds of non-schematic horizontal material within a longer reiterative structure, but the function of this "insertion" is neither parenthesis nor excursus. It is bound syntactically to schema units more tightly than was the case in the previous examples, and semantic ties to the schema are also very strong. The message is hardly extraneous to the discourse as a whole. Thus within the strucural type defined by extensive horizontal material located inside of reiterative vertical patterns, a functional continuum appears to operate: the horizontal insertion is more or less strongly associated with vertical context; in cases of very weak (parenthetic) ties or broken continuity (asides, e.g. Example 60) the data examined indicate the occurrence of quite definite phonological and/or reiterative cues to signal resumption of schema linking.

Hierarchical patterning in reiterative schemas has been discussed. In some cases a segment of discourse may lack vertical links to a surrounding reiterative schema, but have a certain reiterative structure of its own, as to a limited extent in Example 62.

Example 63

Context: student commenting following a lecture; (see Example 18)

Text:


(a) raw tɔ̂ŋ phúukpham kàp khrɔ̂ɔpkhrua ..
(b) lûuk tɔ̂ŋ katanjuu tɔ̂ɔ phɔ̂ɔmɛ̂ɛ
(c) tɔ̂ŋ nén phɔ̂ɔmɛ̂ɛ ..
(d) phɔ̂ɔmɛ̂ɛ taaj
(e) tɔ̂ŋ
(f) tɔ̂ŋ
(g) tɔ̂ŋ wáj thúk hâj sǎam pii
(h) hâam paj thîaw ləəj
(i) tɔ̂ŋ ⟨tɛɛŋ ʔâj chút⟩
(j) ʔaw
(k) ʔaw phâa krasɔ̀ɔp maa tàt pen sŷaphâa ..
(l) hâam thîaw

(a) We must have strong family ties;.. (b) children must be grateful to parents, (c) must place importance on parents;..(d) (when) parents die (e) must.. (f) must (g) must go into mourning for three years; (h) no going out for fun at all; (i) (they) must wear a suit .. (j) take (k) take winding cloth and make clothing; (l) no running around.

Example 63 shows a new complexity. Lines (h) and (l), discussed above (Example 18) as an instance of reduction, are now seen in their wider context. The total schema of Example 63 appears separable into right-hand and left-hand interlocking sub-schemas. A semantic opposition parallels the structural division: the left-hand sub-schema enumerates affirmative commands; the right-hand one states a negative command, a type of contrastive relationship (hence the vertically-used listing symbol).

Actually other examples of partial left-right separability have been seen (especially Examples 58 and 60). Extreme cases like Example 63 are quite rare in the corpus examined.

A final problem involving scope of reiteration could be called "recurring theme". In one discourse segment examined widely separated schemas show striking similarity.

Example 64

Context: student commenting following a lecture; states a theory of how knowledge arises and cites historical examples.

Text: (I.)

(a) manút ca kàət panjaa khŷn..

(b)	tɔ̀ɔ mŷa	mii			
(c)		mii	rɛɛŋ-	-kòtdan	
(d)		mii			
(e)		mii	rɛɛŋ-	bìip	ʾaraj thîi baŋkháp raw

(a) Mankind will develop wisdom (b) when there's (c) there's oppression, (d) there's (e) there's some sort of pressure forcing us.

Text: (II. -- following approximately 10 minutes of discourse)

(a) ʾannîi kɔ̂ sadɛɛŋ wâa

(b)			⟨rɛɛŋ-	-bìip ⟩			
(c)	[ma-]						
(d)	manút	tɔ̂ŋ mii	rɛɛŋ-	-kòtdaan			
(e)			rɛɛŋ-	-bìip	thŷŋ ca kàət	khwaamchalàat	khŷn [màa]
(f)					thŷŋ ca kàət	panjaa	khŷn [màa]

(a) This shows that (b) pressure uh (c) ma- (d) mankind must have oppression, (e) pressure, in order for intelligence to arise, (f) in order for knowledge to arise.

Note especially that all of the material in (a) of Ex. 64-I. is present in the schema for 64-II, with interspersed 64-I. schema material as well. A type of inversion involving the relationship

A tɔ̀ɔ mŷa B ≅ B thy̌ŋ ca A

Dominates the two schemas. Even substitutive glossing within the /rɛɛŋ-/ compounds is nearly identical, a circumstance which could hardly be the result of memory and conscious lexical selection after an elapse of ten minutes.

Although clearly this is a special phenomenon, nonetheless there are certain features in common with excursus above, in that the entire ten-minute segment of discourse intervening between schemas I. and II. in Example 64 to some extent exemplifies the point presented in the schemas. Thus, although data in the corpus examined are too limited to analyze this relationship fully, probably excursus within reiterative schema and very disjunct reiterative statements of theme represent points along structural and functional continua, not discrete discourse phenomena.

A second general problem in the treatment of schematic reiteration proposed above arises from structures of the following sort:

Example 65

Context: robbery victim reporting theft to police; recounts events relating to discovery of theft

Text:

(a)		pen	rɔɔj thùuk ŋát		
(b)			rɔɔj thùuk ŋát	kuncɛɛ	
(c)	hěn wâa		rɔɔj thùuk ŋát		kɔ̂ rîip pàɔt bâan

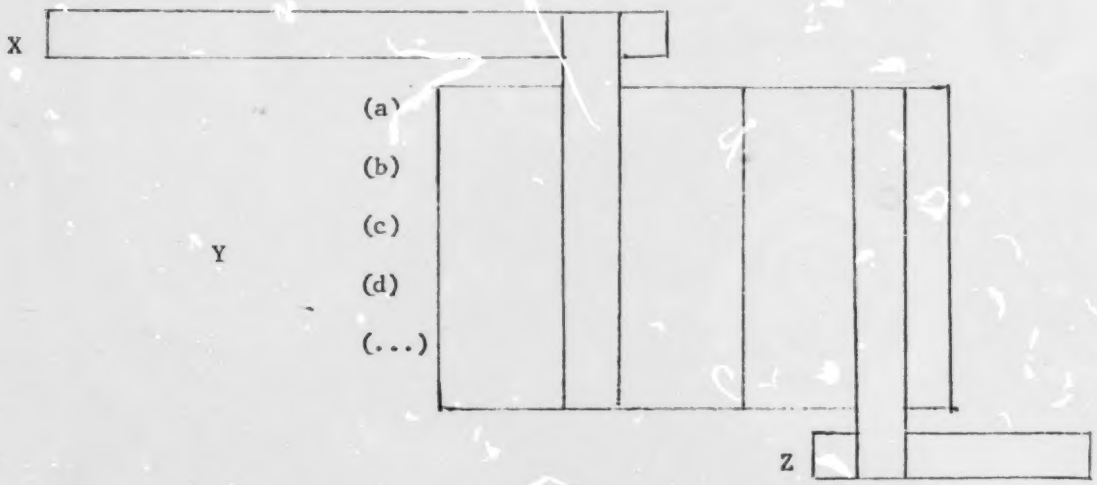
(a) There were signs of being pried, (b) signs of the lock being pried; (c) seeing the signs of being pried, (I) hurried to open the house.

Lines (a) and (b) present no problem in interpretation; (b) is clearly an extension with a sharpening function. But (c) represents a certain departure from the categories proposed. Reiteration is still employed as a linking device but it no longer has a contextualizing function; rather it links new contexts, or more specifically provides a constant facilitating syntactic shift. In Example 65 the linking morpheme /kɔ̂/ also plays a role in the new syntactic pattern. Thus to represent (a + b) and (c) in the same schema is misleading with respect to earlier examples.

In fact Example 38 (g) - (h) has already presented a similar situation, including the presence of linking morpheme /kɔ̂/. In both cases at the close of a reiterative schema material which had served a contextualizing function was selected and inserted into a new syntactic pattern as a link to succeeding discourse. This particular method of terminating a reiterative structure and linking it to the larger discourse has a symmetric counterpart: in some cases the inception of a schema utilizes a similar type of link to preceding discourse. Actually the problem discussed relating to level of editing and horizontal structure of Example 14 can now be resolved: in fact two

structures are present, (a) and (b + c + d), with the latter showing horizontal editing potential, and the former constituting a link to the reiterative structure from prior discourse. Informally, reiterative material in (a)/(b) contextualizes the entire (b + c + d) double extension structure.

A schematic representation of the following type is suggested.



Such a representation is in no sense an obligatory structure. Reiterative schemas can be linked to larger discourse by explicit linking morphemes (e.g. anaphroic deixis, Example 8) or simply by semantic considerations in the shared speaker/listener inventory of construing techniques made possible by common ethno-semantic knowledge. Thus in Example 46 two listing schemas are presented one after another with no explicit linking, but listeners construe the comments as parts of a larger autobiographical complaint prompted by an audience question. Explicit linking is unnecessary.

The diagrammatic representation further aids in clarifying how reiterative schemas relate to reiteration in discourse more generally. Not all reiteration is schematic in the sense established above.

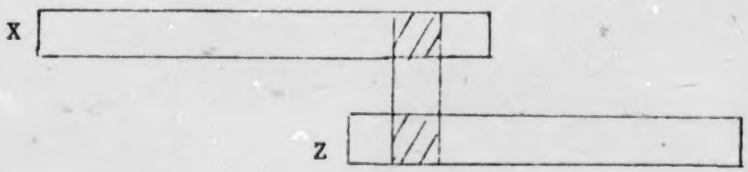
Example 66

Context: school director addressing auditorium audience; discusses instructional methods in training for performances

Text: kaanfɤ̀k nán thâa hàak wâa tɔ̂ŋ khâwcaj ʔàan dèk wâa dèk nii ca mii khwaamsǎamâat paj naj bòt daj tua daj ...

'As for the training, for instance one needs to understand (how to) assess children -- that this (particular) child is going to have the ability to go into such-and-such a scene in such-and-such a role...(then you have to be able to assess and train the child in a limited time).'

In this example the nominal /dèk/ occurs first generically ('children'), and then reiterates immediately in a specific (but indefinite) reading with the deictic /níi/. The semantic shift is paralleled by syntactic exchange of object and subject-agent positions. No reiterative schema is suggested; rather the situation appears to resemble a contraction of the diagrammatic representation. (The limited infra-phrasal linking with /daj/ is ignored here.)



Seen in this way, reiterative schema is a specialized type of reiterative linking in which certain syntactic constants paired with contextualizing reiterations enable controlled introduction of new discourse material with a variety of functions, and in which the horizontal dimension generally predicts a significant level of editing.

The problem raised above is thus reduced to that of distinguishing "schematic" from "non-schematic' reiteration, with the possibility of

joining instances of the former to the discourse as a whole through use of the latter.

Reiteration in Examples 1-66 has been in the speech of single speakers. In addition reiteration frequently occurs across samples from different speakers in a conversation.

In one interviewing situation examined, a police investigator questioned a victim of robbery. In most cases, after a particular answer had been given, the investigator repeated wholly or partially the response before continuing with the next question. Although this particular type of reiteration may have been stimulated by taking written notes, evidence suggests similar patterns are frequent in ordinary interchanges.

Panupong (1970, pp. 193 ff.) has collected many examples of cross-speaker reiteration, most of which could be interpreted as instances of the types of schemas discussed above, with the reduction structure the prevalent one. But she only fleetingly considers the functional aspects of her data, often indicating these only by punctuation in the English glosses.

Example 67 (Panupong, 1970, p. 199; transcription and format altered)

A: jàak sɔ̌ɔn náŋsɔ̌ɔy dèk 'I'd like to teach children.'

B: jàak sɔ̌ɔn dèk 'You'd like to teach children!?'

Surprise or mild challenge appears to be the function signalled by Panupong's "!?" punctuation. Structurally this is a clear case of reduction.

Other instances of mild challenge can be found among Panupong's

examples, but there is no indication of what, if any, phonological marking is present.

A vaguely-defined sociolinguistic role relationship appears also to be present in Panupong's examples. An inferior or non-intimate equal would hardly challenge a statement in the way shown above. A possible parallel to the police interviewing situation might be postulated tentatively; the issue there is not one of challenge, but use of the particular type of reiteration appears related to role relationships in the speech situation.

The use of reduction in answering questions has been discussed at length in standard Thai grammatical treatments, and Panupong (1970) presents an extended taxonomic survey. Strangely she mixes answers, challenges, and single-speaker phrase pairs in her discussion, with little attention to anything other than omitted syntactic constituents.[29] Although her examples are of value, considerably more analysis will be needed to clarify how various types of reiteration can function as responses in a discourse context, and how sociolinguistic role considerations affect the selection of particular structures. In the corpus providing most of the examples for the present study such cross-speaker reiterations are limited and insufficient to establish structural and functional distributions with as much confidence as has been possible in the case of single-speaker reiterations (Examples 1-66). But it should be emphasized that structural similarities between single-speaker and cross-speaker reiteration types appear to be very strong in Thai.

3.3 Linking and Feedback. In the preceding section we classified formal and functional distributions of a class of discourse linking structures referred to as reiterative schema. We now suggest how these and related discourse phenomena appear to involve systems of linguistic selection based on the interaction of psychomotor and socio-cultural constraints.

Central to investigating the relationship between these constraints is the notion of feedback, which can be distinguished as (1) autofeedback, the controlling effect of prior on following text uttered by a particular speaker, and (2) external feedback, a somewhat vague collection of perceptions of how text is affecting listeners, including but not limited to overt verbal signals. These perceptions give rise to various controls on text. Both types of feedback involve some conscious and some semi- or unconscious response paradigms.

Much theorizing about the nature of language has ignored the obvious fact that normally speaking involves at least an autofeedback process. One typically hears at least the basic content of what one says and, it is reasonable to expect, reacts to it if not consciously then at some subconscious level.

The converse is not the case. It is possible to attend to and comprehend speech without exciting the articulatory apparatus. Thus the passive ability is in some sense prior to the active, a speculation certainly confirmed both by order in natural language acquisition and the possibility of becoming passively bilingual without being actively so, but hardly the reverse. Marginal conter examples may be produced: total (inner-ear) deafness, inability to "hear what one is saying" when engulfed in sound upwards of 110 db. (e.g., near an airplane turbine),

or perhaps subvocal "talking to oneself". Extensive research has only been conducted in the first area, where it has been shown that congenitally deaf children typically never achieve even near native-speaker productive abilities (Furth, 1966)[30], and in rare cases of inner-ear dysfunction precluding vibratory feedback among already fluent adults, there may be kinaesthetic feedback from articulatory organs which is translatable into a modality similar to auditory feedback in hearing speakers.

In view of this relationship, it can be speculated that speech production is regulated by a system of perceptual "targets"; articulatory physiological sequences are actively monitored by auto-perception and a subconscious comparison of such data with targets. When set levels of tolerance are violated, articulation is subjected to tighter control.[31] Probably for Thais different speech transactions "come with"specified levels of tolerance, e.g., lenition of consonantal closures, adjustments in contrastive vowel length and features of adjustment in the contrastive tonal system[32] all appear to be "stylistic", i.e., related to transactional context.

Seen in another way, the relationship is one between distinct clusters of habits. Articulatory physiology is commanded mostly through Cranial Nerves VI (labial processes), IX (velar processes), X (laryngeal processes) and XII (apical processes). Auditory information is carried by Cranial Nerve VIII. Articulatory "command posts" are quite highly localized in the left cortex (Lenneberg, 1967), however auditory processes are trans-cortical (Hardy, 1962). These latter are seen as setting up perceptual expectations which regulate the former. Hardy (1962, p.358) reports that if trans-cortical auditory

areas are "damaged or...profoundly interfered with by some aspect or another of maldevelopment, any or all of the other language functions may be profoundly impaired or absent." On the other hand, articulatory habits also seem to affect indirectly some aspects of auditory perception through screenings: thus the Vestibulocochlear Nerve(VIII, of which the Auditory Nerve is a section) transmits six times as many efferent impulses as afferent ones (Hirsch, 1965; Hardy, 1972), but the exact connections with articulation have yet to be clarified. Different transactional contexts may call for different sorts of screening, presumably a function of efferent impulses.

In training deaf children to speak, apical and labial stop contrasts are fairly well mastered. Among the more difficult items to control are pitch, intensity, and other laryngeal-associated features (Furth, 1966). These facts strongly support the speculation above, since apical and labial activities have salient kinaesthetic concomitants, but laryngeal processes typically involve scales of activity with less direct kinaesthetic perception associated. One can "feel" a dental stop but not a 10 cps. differential in approximations of the vocal folds. On the other hand one can perceive a 1 or 2 cps. differential in the range of normal speech fundamental frequency (Lehiste, 1970), and a 10 cps. differential is actually used in some languages (e.g. Thai; Abramson, 1962) to make distinctions.

In addition certain articulatory/physiological sequences (e.g. apical, labial) perhaps by their nature require less auditory "target" feedback than others (laryngeal); there is no reason to expect all sets of habits in articulation to be of equal strength and dependability.

For the purposes of the present study we need only underscore the pervasiveness of the postulated feedback processes in producing speech. Even on the phonological level they are probably more important than most models of speech production have led us to believe. In Thai, where phonological contrasts involving quite minute laryngeal adjustments are ubiquitous, perhaps the role of phonological feedback is even more important than in English.

Apart from nearly instantaneous feedback regulation of articulatory physiology, there are degrees of more delayed feedback associated with higher levels of linguistic processing. For these to operate, material one has uttered is apprehended through auditory perception but must be "stored up" to varying extents so (a) linear sequences can accumulate long enough to trigger reactions and evaluations of a more syntactic or semantic nature, and so (b) delay time comes available for less automatic selectional processes. Pittenger, Hockett and Danehy (1960, esp. pp. 113b, 153b) suggest feedback-determination of "merge" states in speech behavior, that is, points in a discourse at which an indefinite message could go in one of several ways.

Autofeedback can also be quite directly connected to the frequent division between long-term and short-term memory (usually called respectively secondary and primary following James, 1890). In an extensive series of experiments Conrad has shown that short-term memory (STM) involves primarily the storage of phonological input, whereas long-term memory (LTM) stores primarily semantically-processed information. Visual after-image and visual STM have a similar relationship to LTM semantic processing (Conrad, 1959, 1962, 1963, 1964, 1965; Conrad and Hull, 1964).

The division is not astonishing when one reflects on the serial/linear nature of the speech signal in time, and the presumably non-linear nature of most semantic relationships. One cannot efficiently perform semantic analysis on incoming linear acoustic material without the intermediate phonological and syntactic organization of such material into analyzed hierarchies which link the linear to non-linear processes. To construct these hierarchical analyzed chunks, incoming data must be temporarily stored, the duty of STM. After four or five seconds of storing phonological information derived from incoming perceptual data, STM is as it were "filled up" and new incoming material will typically (but not always) dislodge the previous (Waugh, 1961; Norman, 1969).

Coincidentally the rate of respiration in conversational discourse is usually about five seconds per cycle. In an idealized type of speech one would expect that intensity-decrease and pause required by respiration would also mark closure of a linguistic unit, say phrase.[33] For this idealized type (most common in English in oral reading or careful speech) we postulate:

5 sec. respiratory cycle/x phrase(s)
↓ ↓
5 sec. STM capacity /x phrase(s)

Recently Fodor, Bever and Garrett (1974) have discussed the phrase (or clause) as a unit in STM (cf. also Jarvella, 1971; Caplan, 1972). In actual spontaneous speech however the situation is potentially more complicated. One strategy of speakers is "determinalization", the deliberate positioning of respiration and other pauses so as <u>not</u> to coincide with phrase structure, thereby providing a defense against

interruption. But in order for this ploy to be effective, a model somewhat like the above must be assumed: the listener must be "kept waiting" for linguistic material he is set up to expect. In the Thai corpus examined, two instances of (interruption-safe) public speaking were examined: in (1) there was high agreement of pause with phrase terminus, in (2) there was frequent determinalization. This might appear to be evidence against the above proposal, but on closer examination, an important factor emerges. In (1) the speaker has had much public speaking experience, but in (2) probably very little. Perhaps (2) was determinalizing through habit, even though in the actual communication context it was non-functional in the sense we suggest.

Whatever the phonological facts may be, it is quite clear that STM holds a small number (in some cases one) of the incoming phrases until semantic analysis and LTM storage has been completed (Jarvella, 1971). Part of the storage process involves conforming incoming semantic information to pre-existing schemas (shown in classic experiments by Sir Frederick Bartlett in the 1920's and 30's). Furthermore, Baddeley (1966) has shown that linking in STM vs. LTM follows the general phonological vs. semantic divisions discussed above. Thus semantic linking to some extent involves conforming the content of incoming phrases to "preconceptions" in linkage already internalized in schemas.

On the basis of this model, it becomes necessary to distinguish two types of autofeedback, immediate (phonological/STM) and delayed (semantic/LTM):

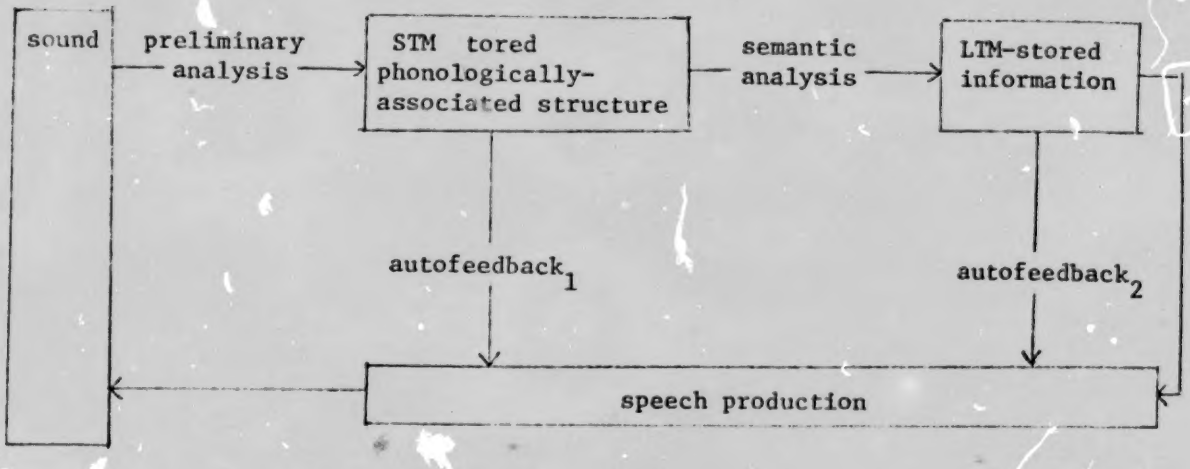


Figure 4

Types of autofeedback

Cycles with quite specific timing such as respiration and STM are by no means unusual in physiology. On the contrary the great majority of complex physiological activities in daily life, it not cyclic, are at least schematic, in the sense of Piaget.

From earliest infancy through later stages of development Piaget and his followers have shown a succession of psychomotor schemas. Sucking, yawning, grasping, crawling, chewing, walking, and later writing etc., are seen to parallel and facilitate cognitive abilities. The grasping infant does not need to reconstruct a very high number of serialized physiological acts with proper timing and certain permissible tolerances once the schema is established; rather the schema is "activated". Permissible tolerance is important, since all "grasps" need not be identical. Some schemas have levels of variability. In walking, one's normal gait probably has a fairly narrow zone of variability; on uneven terrain this may be semi-consciously regulated by visual assessments; on occasions it may be quite consciously varied

over a wide range. Quasi-cyclic schemas like walking thus have loosely-associated temporal regulation. Quasi-cyclic schemas of a more cognitive nature may also have loose temporal instructions: dialing a familiar telephone number, pruning rose bushes, paddling "stern" in a canoe, ringing up items at a check-out counter, playing checkers, etc. Of course associated temporal instructions are not necessarily independent of external factors.

Following Piaget, Sinclair de Zwart (1972) has attempted to show how cognitive schemas may underlie language acquisition, but evidence is not yet clear, and the exact nature of the relationship, either developmentally or synchronically, of speech to cognitive and psychomotor schemas has yet to be established. It is proposed that the reiterative discourse schemas investigated in the preceding section are indicative of this relationship, subject to further empirical observation and testing.

Specifically, it is suggested that autofeedback-facilitated reiterative discourse schemas employ a cyclic repetition process with loose timing, striking in formal similarity to cognitive psychomotor schemas. Even the proposed subdivisions (extension, substitution, reduction) appear to have analogues in certain sequences in psychomotor schemas.

An immediate problem arises in the empirical scope of the present study. Although there is some reason to believe that reiterative discourse schemas may occur as linking devices in languages other than Thai, for the time being such an assumption is speculative. However if we are correct in associating this discourse mechanism with more generalized patterns of human behavior, it would follow that similar

phenomena would be very likely to occur elsewhere, unless the Thai situation should be found to have idiosyncratic features present which facilitate the mechanism.[34]

Central to understanding reiterative schema in discourse as autofeedback-facilitated is a distinction in speech activity which may have led H. Jackson (1878) to distinguish by the "introspective method" what he called "now-coding" from "then-coding." "Now-coding" for Jackson was "ad hoc formulation of what one is saying (likely to be reflected in more and longer hesitation pauses, as well as less predictability of forms used)", whereas "then-coding" was "use of preformulated expressions (greetings, sayings, and commonplaces...)" (summary from Gumperz and Hymes, 1972, p. 468).

Reiterative schemas as described above are clearly cases of "now-coding", or, to call attention to the autofeedback process, "post-redaction". Under this category we classify not only reiterative schema but any discourse structures for which evidence of autofeedback in construction can be deduced.

In the Thai samples examined, post-redaction is seen most clearly in cases of corrections and adjustments. Yet Jackson intuitively associated hesitional phenomena with this type of speech, and for Thai at least his assumption is valid. As noted earlier, stammer/stall often features morphemes used in contextualizing reiteration, and the hesitation function employs the same formal devices as the adjustment functions. In addition syntactic and/or lexical "inertia" can sometimes be adduced as an encompassing stall feature superimposed over lower-level adjustments. Consider:

Example 68

Context: author speaking to student group; discusses modern Western literature

Text: man man láksanà..khɔ̌ɔŋ ʔéksítəənalít man man .. man man pen pràtchajaa khɔ̌ɔŋ khwaam- .. khɔ̌ɔŋ hóoplèet .. ʔəə khɔ̌ɔŋ khwaam- .. khɔ̌ɔŋ khwaamphìt- .. wǎŋ ʔaraj baaŋ jàaŋ khɔ̌ɔŋ khon .. khɔ̌ɔŋ khon thîi phŏm phajajaam phûut mŷa sákhrûu lɛ́ɛw wâa (...)

Abbreviated representation of schema: (láksanà khɔ̌ɔŋ ʔéksítəənalít) man^{5} pen pràtchajaa khɔɔŋ^{2} { (hóoplèet) / khwaam^{2} phitwǎŋ } ʔaraj baaŋ jàaŋ khɔ̌ɔŋ^{2} khon^{2} (...)

Translation of abbreviated schema rep.: (The characteristics of 'Existentialism')- it^{5} is a philosophy of^{2} { 'hopeless' ENG. / disappoint-ment^{2} } of some sort, of^{2} people^{2} (who I was trying to say a minute ago...)

In this case post-redaction or now-coding is quite clearly established, particularly by the complex substitution/extension/hesitational repetition where the speaker is attempting to gloss the English loan "hopeless" with a Thai equivalent. Striking breaks after the bound form /khwaam-/ occur repeatedly. Of interest too, the following /khɔ̌ɔŋ khon/ repetition shows lexical "inertia"in that it uses material (khɔ̌ɔŋ) which had also been used repetitively in a separate context just prior.

The stall and "inertia" functions then appear to share part of the same cyclic mechanism utilized by autofeedback post-redactive adjustments. Phonological material stored in STM provides input for this mechanism. In addition non-repetitive types of stall (e.g. the prolonging of certain segmental consonants) may affect articulatory processes more directly, but here too some degree of autofeedback is

probably involved.

In feedback$_1$ (Figure 4, but broadened to include the possibility of external information) it was seen that STM supplies data to processes controlling reiterative schema production. But in most cases the speaker is reacting to semantic correlates of the STM material, not to phonological characteristics per se. So Figure 4 requires expansion.

The selection of a reiterative adjustment schema can now be seen as one result of an evaluation process. Given an "ongoing" semantic message which is well-formed or "fluent" in some undetermined sense, the semantic representation of incoming STM-associated perceived speech is compared to it. If the results of the evaluation are in some sense negative, i.e., the incoming message fails to meet certain standards of congruency to the ongoing/outgoing one, a usual pattern of behavior (in the Thai cases examined) involves selection of one of the functional/structural categories of reiterative schema. Other selections can be made, e.g., anacoluthon, where the old incoming material is abruptly broken off in mid-phrase and an entirely new start is made; or an overt correction can be made:

Example 69

Context: author speaking to student group; mentions his starting to write

Text: sǎahèet thîi khǐan mâj mii.. kɔ̂ ... mii hèet mǐyank... ...(...)

'There wasn't any reason I wrote...well...there was too a reason(...)'

In this case the sequence /kɔ̂ ...mǐyankan/ informally signals self-contradiction, but even in this overt correction formal reduction + extension

characteristics are quite similar to those of structures already discussed.

The above relationships are tentatively summarized in the following diagram:

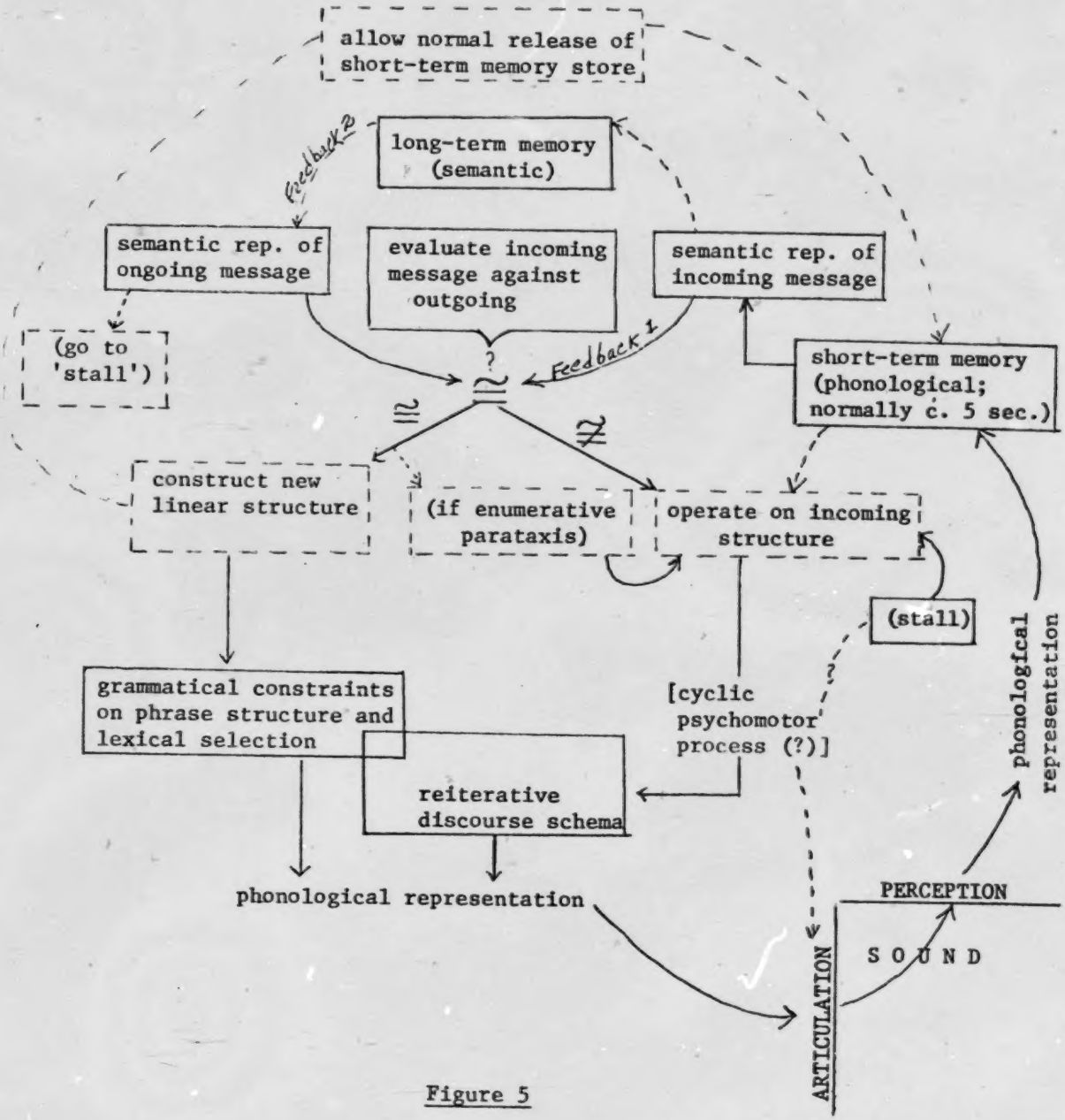


Figure 5

At the "evaluate" nexus of the diagram a right-hand decision takes the discourse back over previous material with various adjustments; a left-hand decssion leads to new structure. In fact the decision in probably not so binary: substitutive reiterative schema always involves some degree of lexical innovation; extensional, some degree of syntactic innovation. But it is not true that succeeding structures in a discourse must have any reiterative elements at all, and in certain types of speech it is often the case that they do not.

If a sample of discourse consistently shows left-hand decisions, i.e., is characterized by lack of reiterative structures of an adjustment type, that sample could be called pre-redactive. Either initial structural and lexical selections have been made with sufficient care to ensure positive evaluations of incoming congruency to ongoing, or else (which is perhaps to paraphrase this) some type of evaluation is made prior to actual utterance, and processes perhaps similar to those of reiterative schema construction are carried out before (and much faster than) actual speech. The "horizontal dimension" of the schema is then "read off" as edited (congruent to ongoing message). The present study has not operationalized this hypothesis in terms of testing, but the discourse data examined appear to support it at least moderately well.

Pre-redaction diverges from Jackson's "then-coding" somewhat. While it is reasonable to expect that formulaic speech sequences would seldom be subjected to reiterative treatments, the converse proposition is unfounded: many non-reiterative sequences are not particularly

formulaic. It is likely then that Jackson succeeded in identifying one subtype of a larger set (pre-redactive speech), and this latter set, not its subtype, properly stands in opposition to "now-coding" (post-redaction).[35]

An interesting piece of evidence illuminates the relationship of 'stall' to 'post-/pre-redaction' in the Thai corpus. In post-redactive reiterative schemas stall phenomena freely intertwine with vertical schema patterning at virtually any syntactic point; in pre-redactive samples, hesitational phenomena usually occur between different phrases, and even occasionally seem to "mark" phrases as beginning a succeeding stage of discourse.[36] If this should be a general tendency, it would lead to differentiation of the stall function and provide more support for the proposed pre-/post-redaction distinction.

In associating reiterative schema with post-redaction one problem remains. The substitutive structure with a paratactic listing function (Ex. 36 - 47, etc.), including parallel contrast, does not appear to be an "adjustment" in the sense of the other reiterative schema functions. In many instances of this structure new material seems not to be presented as an afterthought or sharpening intended to supercede previous forms in the syntactic position subject to substitution, but rather to be achieving a powerful bond between listed items by having tight syntactic relationships carried over into semantic interpretation. What is given as syntactically parallel is taken as semantically linked, even without otherwise normal linking morphemes.

In Example 41, 41a a hierarchically-organized set of lists was stated involving description of early Athenian democracy.

Contextualized sequences

(a) think ⟶ speak ⟶ act; (b) elect ⟶ right ⟶ freedom

were constructed. In each sublist a progression appears to be involved. In (a) this is a progressive increase in physical activity. In (b) perhaps there is an increasing abstractness. In Example 46 a progression is constructed of increasingly negative emotional states. In Example 38 school buildings and facilities are enumerated, perhaps on the basis of some spacial orientation (distance from speaker?), or of order in perception/attention as the speaker's eye wanders over the immediate environment. In none of these lists could a good case be made for an adjustment function of the reiterative schemas.

Furthermore the actual distribution of this linking type shows marked contrast with occurrence patterns for other reiterative phenomena, as we see below.

For these reasons it is necessary to isolate paratactic listing schemas, along with related contrastive parallelism (Ex. 43, etc.), and allow these to occur in pre-redactive speech. This modification has been made on Figure 5, somewhat skewing the otherwise binary division proposed.

It is of interest that occasionally not only syntactic but even phonological parallelism enters into parataxis of this variety:

Example 70

Context: school director addressing auditorium audience; lists skills necessary to teach drama and dance

Text: lɛ́ʔ sǎam thaaŋ praphan khyy ca tɔ̂ŋ tàt tɔ̀ɔ tɛ̀ɛŋtəəm dâj

'And in the third place, (one must have skill) in literary composition, that is, must be able to trim, connect, make up, and insert (material for scripts).

A certain cohesion is given to the verbal listing through reiteration of the initial unaspirated dental stop. Additionally the first three items all show low tone.[37]

The discussion above has centered on the role of feedback$_1$ in reiterative schema. What of feedback$_2$, associated with LTM?

Only in rare cases does feedback$_2$, i.e. retention of literal discourse material for a period of more than a few seconds, appear to affect the issues involved in reiterative schema. A striking exception was noted (Example 64), where widely separated schemas showed similar but altered syntactic structure. Through the study of other similar cases a good deal of insight could be obtained into how syntactic material is gradually (?) modified and interpreted for LTM storage. In the example cited an over-all discourse pattern of A - B - A - C - A ... was observed, where A (cf. Example 64) in various forms was repeated, interspersed with loose examples to support the argument being made. Proponents of various positions in the current "lexicalist debate" in post-Generative-Transformational linguistics might adduce examples like the above as evidence for this or that generative semantic process, minimizing the importance of feedback and LTM. The view presented here is an alternative to that form of analysis.

In any event, feedback$_2$ is most closely associated with a different range of discourse linking processes, those treated as "implicit linking" in part I. The need to consult LTM in the construing of links is suggested below. A somewhat unusual use of the term "feedback" (i.e. feedback$_2$) is retained for LTM effects since there is probably a continuum involved for "acting on previous discourse"

operative over a temporal span.

Earlier we suggested that the possibility of construing implicit links in discourse is a function of shared experiential aggregates among discourse participants, including shared transactional catalogues with associated construing conventions.

We have also seen that Sir Frederic Bartlett and others more recently (Riley, 1962) have demonstrated the important role of preconceptions or pre-categorized screenings and sortings in long-term recall. If incoming data cannot be accomodated to previous constructs, recall has been shown to fall off significantly. This helps to explain the fact of universal infant amnesia: there are not adequate pre-existing constructs available to sort out much incoming data, so they are screened out and not retained. Gradually more and more can be let through the screens.

Members of groups with high reciprocity -- a significant level of common experience in some particular area -- may be assumed to share LTM interpretive schemas relating to the relevant experiential area. In the Thai context, for example, where there is often a wide urban/rural gap in experiential aggregates, village people with little urban expertise will typically complain of "getting lost" easily or not remembering the way to such-and-such a location in the city. A schema for easily processing urban landmarks and guideposts has not yet been developed. Similarly, an urban person may experience confusion and "amnesia" when presented with a rural system of interlocking canals and other waterways. A member of either population transported to an unfamiliar version of his own system can typically make the needed comparisons to past systems and gain access to LTM.

The principle need not be limited to visual perception and orientation. While experimental confirmation of the hypothesis is beyond the scope of this study, it would seem to follow that remembering prior information in a particular -- especially "technical" -- discourse would be subject to the same LTM constraints.

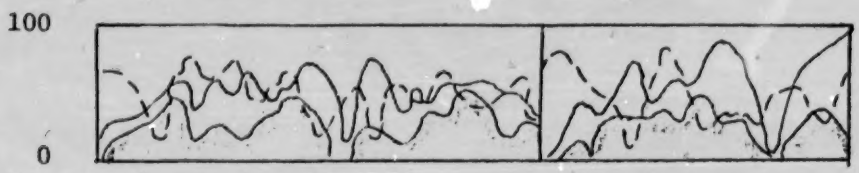
Outsiders listening to an "in-group" discussion may fail to construe links dependent on special transactional norms as we have suggested, but now an additional source of inability is indicated. Shared experiential aggregates allow group members to process text in such a way as to retain it for relevant periods in LTM, where it can then be consulted (probably in semantic, not syntactic-linear, form) to make ongoing discourse links. Outsiders on occasion cannot construe links because they are not remembering relevant prior text; they are not doing this because they lack "background" schemas for interpretation which enable access to LTM; they lack "background" just because they are outsiders, i.e., for reasons to do with social factors. Thus once again we see that social constraints operate in discourse linking.

Finally we turn to a consideration of how some feedback-associated discourse phenomena, particularly the pre-/post-redactive distinction, bear on the patterning of speech transactions.

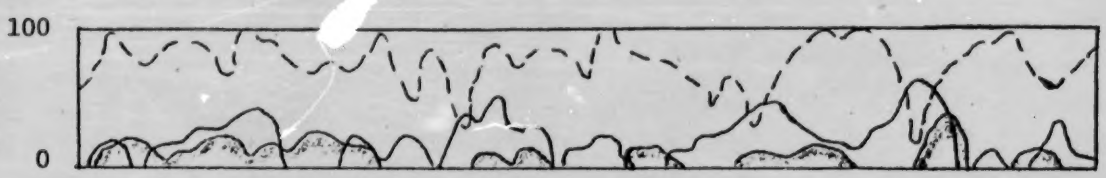
In general, the more formal the transactional context, the closer was the approach to normative literary Thai, which significantly included a preference for pre-redaction and suppression of post-redactive indicators. The samples of discourse compared differed as to (1) over-all ratio of pre- to post-redactive indicators, (2) "ebb and flow" patterns of the types through a given discourse, and (3) the

degree of negative correlation. A particularly well-defined indicator is morphemic vs. reiterative linking, with a correction made for enumerative parataxis.

Example 71 (12 minutes)



Example 72 (18 minutes)



---- % phrases with linking morphemes present

—— % phrases with reiterative links present

~~~~ % post- redactive links

In examples 71 and 72 profiles of linking devices used clearly differentiate the two discourses. Example 71 on the whole shows speech at least twice as post-redactive as that in Example 72, where much more linking is done by morpheme linkers such as /kɔ̂, mŷa, phɔɔ, thâa/ etc. Both samples show a quite loose negative correlation between presence of morphemic links and post-redactive linking, but the role of enumerative parataxis (covering the areas above ~~~~ but below ~~~~ on the profiles) in the correlation is not clear.

Certain environmental factors are also constant: in both examples the speakers are talking to auditorium audiences extemporaneously,
~~~~

although the possibility of a few written notes cannot be completely discounted, particularly in Example 72. But in Example 72 the speaker is clearly confident, in a position of institutionally defined superiority over much of the audience, speaking of matters of great familiarity to himself, and probably quite experienced in using a high level of formality in oral transactions. All of these are the reverse in the case of Example 71. Thus the formality variable suggested above does in fact appear to predict certain trends in pre- vs. post-redactive linguistic phenomena, as seen in the profiles.

Similar comparisons in more casual speech contexts have provided general support to these claims. Far higher levels of post-redactive reiteration are common, and among certain speakers the saturation is so extreme as to include nearly every phrase in some type of reiterative linking, at least for long stretches of discourse. Recalling the type of linking in which reiterative links occur from schemas to "outer" discourse, and keeping in mind the hierarchical schema-within-schema structure in many of the examples (e.g., Ex. 14, 27, 38, 41, 54, etc.), we could think of such discourses as a series of interlocked reiterative schemas, although such linking is not always at the expense of morphemic linking[38], or of other types of linking (anaphoric, topical) not yet analyzed with relation to type of redaction. Further instances of the interlocking process are seen in Examples 73-74.

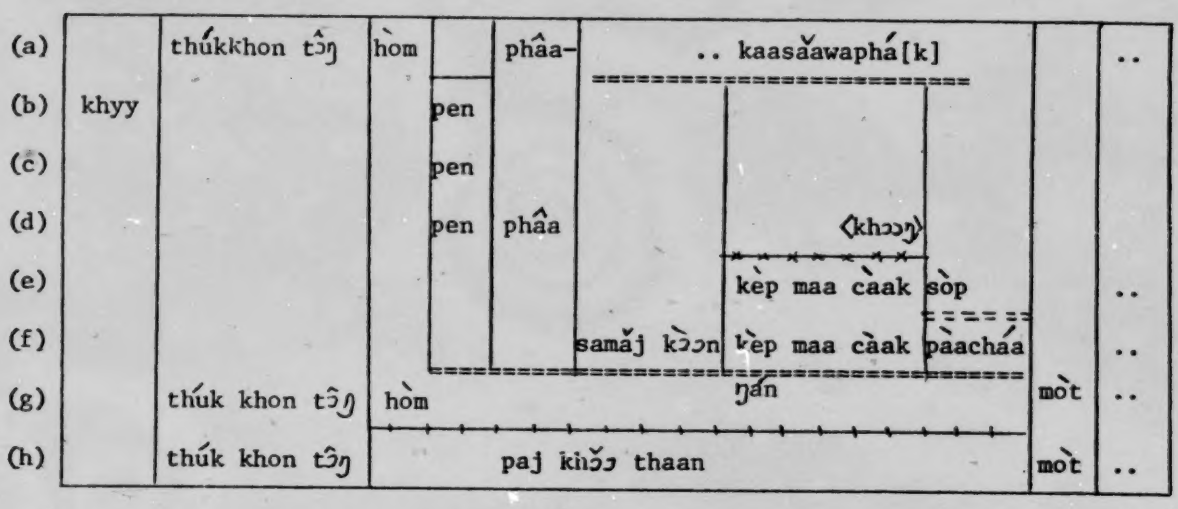
Example 73 shows additional significant indications of post-redaction as well. The semantic message combines elements of a traditional Buddhist nature with Western concepts of social revolution in such a way as to be unfamiliar to the listeners, as the speaker

seems to realize. Steps are taken to provide the needed bridge: temporary anacoluthon occurs (d), followed by a semi-parenthetic insertion, after which the semantic message broken off at (g) is restored (h) and finally, with the aid of an extension, completed (j). This example is particularly clear, but a similar set of processes characterize much post-redactive discourse, and operate over a wide range of different scopes. True parenthesis is probably best seen as a subtype of these processes.

Example 73

Context: student commenting following a lecture; discusses early Buddhist history

Text:

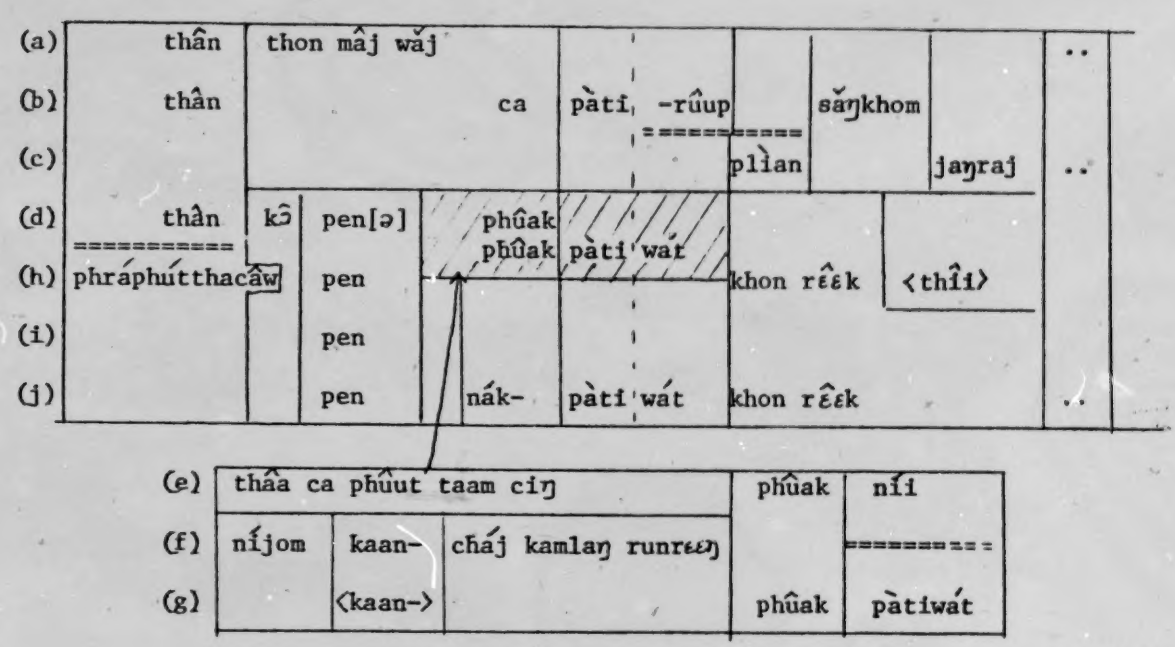

(a) thúkkhon tɔ̂ŋ hòm phâa- .. kaasǎawaphá[k] ..
(b) khyy pen
(c) pen
(d) pen phâa ⟨khɔɔŋ⟩
(e) kèp maa càak sòp ..
(f) samǎj kɔ̀ɔn kèp maa càak pàachâa ..
(g) thúk khon tɔ̂ŋ hòm ŋán mòt ..
(h) thúk khon tɔ̂ŋ paj khɔ̌ɔ thaan mòt ..

(a) Everyone had to wear garments ..of saffron hue; (b) that is, they were (c) were (d) were garments belonging to (e) gathered from corpses, (f) in earlier times gathered from graveyards; (g) everyone, all, had to wear these; (h) everyon, all, had to go begging.

Example 74

Context: student commenting following a lecture; i entifies revolutionary aspects of early Buddhism

Text:


(a) thân thon mâj wâj .. .. ..
(b) thân ca pàti -rûup sǎŋkhom
(c) plìan jaŋraj
(d) thân kɔ̂ pen[ə] phûak
(h) phráphútthacâw pen phûak pàti wát khon rɛ̂ɛk ‹thîi›
(i) pen
(j) pen nák- pàti wát khon rɛ̂ɛk ..
(e) thâa ca phûut taam ciŋ phûak nîi
(f) nîjom kaan- chái kamlaŋ runrɛɛŋ
(g) ‹kaan-› phûak pàtiwát

(a) He couldn't stand it..; (b) he was going to reform society, (c) to change it somehow..; (d) so he was the- (e) truth to tell, this group (f) accepted the use of force and might, (g) the (h) -the group of revolutionaries,- (h) the Lord Buddha was the first who (i) was (j) was the first revolutionary.

Before leaving Example 74, we note in (g) a substitutive adjustment, indicated as gloss in the schema, in which /phûak nîi/ 'this group' is specified as /phûak pàtiwát/ 'the group of revolutionaries'. Of interest is the position of the contextualized adjustment. It occurs after (e) - (f) (and after what appears to be an abandoned parallel listing in /kaan-/) as perhaps the result of feedback$_1$ indicating that the original subject of VP (f) was not specific enough to convey the intended message to listeners.

Other instances of this "post-statement" characterize otherwise post-redactive speech, but not always with a sharpening or specifying function.

Example 75

Context: author speaking to student group; mentions shift in literary forms during his career, in response to question

Text: (a) rŷaŋ sân kɔ̂ mâj dâj khĭan há

(b) mâj dâj khĭan maa kỳap pii lɛ́ɛw rŷaŋ sân

(a) So I haven't written short stories, (b) haven't written for nearly a year now,-- short stories.

"Epistrophe" of this variety appears to be an effective device in establishing an informal/colloquial transactional context.[39] Example76 is a particularly clear instance of manipulating a situation which usually calls for formality (speech by one of the elite to a large crowd of strangers) into a much less formal transaction, even involving interaction (audience laughter as response to puns and anecdotes). Reiterative schema and epistrophe are structural principles which go hand-in-hand with jocose semantic content. Note the combination of the two post-redactive types.

Example 76

Context: important politician giving seconding speech; establishes informal rapport with outdoor crowd; justifies his support for younger political candidate.

Text: lŷak kháw paj thammaj khráp..khon kɛ̀ɛ khon jàaŋ phŏm

'Why should they be elected, the old people, people like me?'

Laughter punctuating the speech in Example 76 is a form of external feedback. Such influence of listeners on what is being said can take many forms, but most of these are associated with discourse established by other means as post-redactive.

An important type of external feedback in Thai involves the particle system, familiar from earlier treatments (e.g. Haas, 1944), but still in need of much study. Haas (1964, p.xxii) adopts a binary analysis - "modal" particles vs. "status" particles. She notes that both can co-occur, with the former always preceding. Both types of particles frequently punctuate many of the discourse texts in the corpus examined, and react together in an overt feedback system in which both modality and status considerations are present. Certain particles (e.g. /ná/) are used in mild requests for listener response, and others are used to signal attentiveness and comprehension (but not necessarily agreement, rendering "yes" a poor translation). But the total system is much more complex than this.

Significantly, particles which appear to be most directly associated as well, but must remain outside the present discussion for lack of direct evidence.[40]

On the other hand, pre-redactive speech is characterized not only by the absence of the features discussed above, but by the presence of specific features as well. Lexical choice and frequency is one important area; construction of phrases with respect to placement of NP's which are arguments to a particular VP is another.

In more extreme cases of pre-redactive oral speech the influence of literary norms cannot be minimized. Habit patterns in dealing with written materials may well carry over into extemporaneous oral speech,

particularly in a social context where such is valued.

The seeds of certain literary linking devices are found in post-redactive speech. In one literary text examined (Damrong Rajanu bhak, 1961) lexical "chaining" of topic resembles the clearly post-redactive treatment of the topic /khwaamrúusyk/ occurring as a "core" in Example 59. In the literary sample, on either side of the "core" various hierarchically-organized paratactic schemas occur, regulated by linking morphemes. The differences is in type of reiterative schema; the literary sample lacks the adjustment (extensional and substitutive-gloss, -correction, etc.) reiterations. Thus apparently in Thai one important feature of literary style is not so much the total repression of reiterative schema in written text, as a shift to the use of enumerative-paratactic and contrastive parallel sub-types of substitutive schematic reiteration.[41] Consequently, as one becomes more and more proficient at extemporaneous pre-redactive speech one acquires the ability to produce, interalia, enumerative parataxis, minimizing other reiterative linking devices directly associated with feedback$_1$, at least in Thai.

Perhaps this distribution even predated the establishment of Thai written literary norms per se. An examination of the first instance of Thai writing, the Ram Kham Haeng Inscription (1292 A.D.), reveals a very high density of reiterative schema, but entirely of the enumerative-paratactic variety. Of course literary norms could well have been established through memorized folk drama and poetry beforehand. In any event, reiterative schema is documented as an important linking device in Thai discourse which has been operating for well over half a millenium.

FOOTNOTES

1 Cf. Warren and Warren (1970)

2 Although pitch levels are maintained as rate of speech is adjusted to decrease, the increment system used by the machine produces an effect similar to glottal or pharyngeal phonetic features which in turn influences the perception of tone. However with repeated practice one can somewhat adjust perception processes to accomodate.

3 Cf. Bloomfield (1933, pp. 179 ff.); Robins (1953, p. 111).

4 The subject was discussed in a series of panels at the winter meeting of the Linguistic Society of America, 1974. Among important points were the hierarchical structure of topicalization (previously discussed by Hockett, 1958, pp. 202 ff.) and the relationship of topic/comment analysis to subject/predicate and/or actor/patient/benefactive types of category.

5 Cf. Examples 54, 61, 63.

6 This experiment also included the editorial insertion of three high frequency morphemes -- nɨ́i (topicalization), man (pronominal referent), kɔ̂ ʼdiscourse linking auxiliary verb). Personal style is involved here and there was considerable variation among the four informants, but also a surprising amount of agreement.

7 Studies by R. Quirk have lucidly made this point.

8 Cf. Goldman-Eisler (1972), but even in this formal variety the data presented do not seem to warrant the conclusion that pauses correlated strongly with syntactic boundaries. Thus about 5% of running lexemes neither clause- nor sentence-final were followed by pause; at a speech rate of 300 milliseconds/lexeme this would mean a non-syntactic pause on the average of once every six seconds.

9 Cf. Appendix.

10 This approach has been taken by Harris (1952, etc.) with short segments of literary English, but little more emerged than a method for symbolizing a few recurring patterns. Principles remained obscured.

11 A notable exception is in the case of threats: "They do that once more (and) I'm walking out."

12 S. A. Messenger has kindly made available frequency data for written texts he has been studying.

13 Deictics are more frequent with first-person (i.e., non-anaphoric) pronominal forms in the corpus: phŏm nìi 'me here'; raw nîi 'we here'. In rare third-person cases emphatic marking appears always implied: hŭanâa nùaj kɛɛ niʼ kɛɛ kɔ̂ paj ʼaw 'The head of the unit, he took it.'

14 Cf. Example 54 for partial text.

15 Cp. cognate forms to /khaw/ in several other languages of the Thai group (e.g., White Thai, Nung, Tho) with apparent plural use only.

16 Unlike Thai, English occasionally employs special suprasegmental marking in like situations: "John told Bill he would rather he didn't go, but he said he was going to." (vs. "... he said he was going to.")

17 Cp. "A respects our Primary Perception, and denotes Individuals as unknown; The respects our Secondary Perception, and denotes Individuals as known." (J. Harris, 1751; cited by Grieve, op. cit.)

18 The importance of situation of utterance in the philosophical treatment of reference has been of central concern to post-Wittgenstinian semantic analysis. Sociologists and literary critics have also turned attention to this area:

> ... ways of speaking are essentially indexical (like pronouns) in the sense that part of their meaning will always lie in the situation in which they occur, and in the associations this situation evokes in the participants' minds ...
>
> (paraphrase of Garfinkel, 1967, by Gumperz & Hymes, 1972: 308-9.)

> In speech the function of reference is linked to the role of situation of discourse within the exchange of language itself: in exchanging speech the speakers are present to each other, but also to the circumstantial setting of the discourse, not only the perceptual surroundings, but also the cultural background known by both speakers...Language is moreover well-equipped to insure this anchorage; the demonstrative articles, the spacial and temporal adverbs, the personal pronouns...serve to anchor discourse in the circumstantial reality which surrounds the instance of discourse.
>
> (Ricoeur, 1971:138.)

19 Cicourel has noted,

> ...vocabularies are an index of...experience... Different sentences might require knowing different common knowledge or presumed common knowledge to give...some kind of interpretation. Thus it might be necessary to know where the utterance was made, who made it, and its temporal character. The significance of conversation or written indexical exprssions however cannot be stated as merely a problem in pragmatic context; rather it requires some reference to the role of 'what everyone knows' in...recovering or retrieving the 'full' relevance of an utterance. (1970:150-51)

20 E.g., in one corpus interview, the official regularly linked his questions to the interviewee by repeating part of the latter's response to the preceding question. The non-lexical form [?aa] also had a definite function in transitions and linking.

21 A. Schutz (1945), following James (1890) has spoken of "many sub-universes of reality, of finite provinces of meaning..." (p. 207, exphasis orig.)

22 I.e., are "-emic" in the sense that the term implies for structural anthropology (Levy-Strauss, 1958), but not for linguistics.

23 English also is subject in principle to analysis at this level. To ignore it leads to unwarranted generalizations about role-related factors. Thus Mishler (1975) has recently attempted to show that authority relationships between speakers predict a type of question/answer behavior described as "chaining" and "arching". As far as his data go, Mishler is justified in his observations, but all instances were first-grade pupil/teacher interactions. Surely the data represent a highly-restricted kind of "classroom speech transaction" -- teacher examining student in academic subject matter -- not necessarily isomorphic to other authority-related transactions, and perhaps not even to the same type of classroom transaction at higher grade levels.

24 E.g. ...hôŋ nɤ̀ŋ dàpbɔ̂ɔl lɛ́ɛw kɔ̂ mii ʔɛ́ktrâa bèt nɤ̀ŋ tiaŋ
room 1 double and has extra bed 1 bed (CLF)
'...one double room, and it has one extra bed.'

Note the contrast: (Thai form) + numeral + (English loan used as classifier) vs. (English loan) + numeral + (Thai classifier)

25 Intermediate stages of this type of analysis come with familiar sociolinguistic labels like "solidarity", "intimacy", etc.

26 Pivotal forms of type ...VP, + NP + VP_2, where the NP serves simultaneously as object of VP, and as subject of UP_2 are common.

27 Jones (1961, pp. 45-47; 54-57) has used 'extension' in describing certain Karen phrase structures. Its use here is in a distinct but closely related sense.

28 The practice is not new; King Chulalongkorn and his retinue used English nominals very freely in their writings; extensive borrowing occurred earlier from Pali/Sanskrit and Khmer.

29 Cp. Karlsen, 1959.

30 From the limited literature concerning so called "feral" children, one might infer that the failure of these children to achieve any but the most rudimentary kind of speech may be linked to their lack of any passive comprehension of human speech, whatever other factors may be involved as well.

31 Hockett (1958, p. 118) has alluded to this process.

32 Cf. Whittaker, 1968.

33 Hockett (1958, p. 81; cf. also p. 52) has suggested the correlation of even finer divisions with controlled breath-related processes.

34 Butterworth (1975) analyzes hesitation phenomena in English by postulating "semantic planning cycles" in discourse which are "underlying rhythms of a biological sort" (p. 85), but unfortunately the evidence presented is not rigorous in constraining what is meant by "planning cycles." The same could be said of Goldman-Eisler's (1968) similar notion of "cognitive rhythm" in discourse.

35 Apparently too close a reliance on Jackson's dichotomy led Bernstein (1972) somewhat astray in his own elaborated/restricted dichotomy, where "degree of freedom" refers to unspecified levels of analysis.

36 Samples in the corpus point to a loose contrastive function for two "filler" forms: [ʔaa] can be used by some speakers to signal new themes in discourse; [ʔeʔ] often marks the beginning of a "spirited" direct quotation.

37 The standard example of literary classical parataxis is Caesar's terse veni vidi vici ('I came, I saw, I conquered'), showing syntactic parallelism and tight phonological parallelism as well, involving initial /v/, long front vowels and penultimate stress. All this contributes to the acclaimed "forcefulness".

38 For some idiolects the morpheme kɔ̂ occurred with higher frequency and with broader functions than would be usual in literary Thai.

39 Sometimes epistrophe is closely tied to perceptual aspects of the outer environment of discourse. The following occurred as discourse participants were looking at a flock of goats:

> líaŋ ʔaw nom ... tɛ̀ɛ mii jɔ́ʔ ná há phɛ́ʔ
> 'They keep them for milking ... but there are lots, aren't there? -- goats.

This suggests the "non-literary" distribution of this structure: literary texts generally must be abstracted from outer environments.

40 Important cross-cultural contrasts occur in this area, e.g., a Thai inferior typically gives feedback to a speaking superior through muscular rigidity, a comparatively "blank" facial expression which avoids eye contact, and low-intensity use of the particle (if male) mentioned above.

41 Even the phonologically-organized listing type occurs in literary texts, e.g. tua phûusɔ̌ɔn rîak wâa sàatsadaa; kham thii sɔ̌ɔn rîak wâa sàatsanâa; phûu thîi taam khamsɔ̌ɔn rîak wâa sàatsanìk ...

'The teacher was called 'doctor'; what was taught was called 'doctrine'; those who followed were called 'indoctrinees' ... (buddhadhatu, 1952)

Also of interest is an archaic orthographic practice of arranging certain paratactic portions of written text in vertical fashion with a stroke for a "brace", e.g.

'And if (the monk) stay (absent) any number of days up to one month,

if $\left\{\begin{array}{l}\text{within the town walls let him spend 3}\\ \text{without the town walls let him spend 5}\end{array}\right\}$ days in $\left\{\begin{array}{l}\text{Sinmai Penance,}\\ \text{Vinaya Penance,}\end{array}\right\}$ Half (in each).

(Pramuan kotmai tatchakan thi 1, cho so 1166, vol. 3, p. 127 (Bangkok, 1938 ed.)

The text above was written in the early 19th Century. With the introduction of the printing press into Thailand in the mid-19th Century, the manuscript practice seems to have come to an end.

In the limited number of cases of this orthographic practice checked, enumerative parataxis was always involved, with or without contrast (cp. "within/without" above).

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APPENDIX: A note on the history of the sentence as a linguistic unit.

1. Two issues are involved: (i) the etymological development of the term "sentence"; (ii) the orthographic development of marking devices presently used to segment literary texts. The two histories have not closely converged until recently (Butler, 1634).

2. By the time of Cicero the abstract Latin noun sententia had been formed regularly from the verb sentire, "feel, perceive", with two associated semantic notions: (i.) "opinion, judgment, sentiment, aphorism"; (ii.) meadning, signification, idea, sense"(Lewis and Short, 1867: 1671). These two notions persisted with the use of sententia throughout the Middle Ages, and when the term was taken up by English vernacular writers, rendered as sentence, it was used with the original Latin semantic readings. The first use noted in the O. E. D. is in 1340 ("...tharefore sentence of dampnacyone ffelle on me;"),in the sense of "judgment" still associated with sentence in its "judicial"reading.

3. However even in the Classical period the noun came to have a special use among rhetorical and grammatical scholars. A unit of sense came to be implied, as when Quintilian (c. 80 A.D.) wrote of

   initia et clausulae sententiarum

   'beginnings and endings of sententiae'

   The unit implied appears to resemble our contemporary paragraph, and also was taken over into English after Medieval Latin employments in the sense of "indefinite portion of discourse or writing; passage" (O.E.D. : 468b). It was probably this reading that evolved into present-day use, first explicitly set down in Charles Butler's English Grammar of 1634, but inherent in Mulcaster's Elementarie of 1586. Both Mulcaster and Butler were interested in establishing norms of punctuation.

4. The only punctuating mark common in early Greek papyrus fragments and inscriptions was a horizontal stroke or wedge indicating paragraph divisions (Thompson, 1912, p. 58). Words are not separated in these texts.

5. Aristophanes of Byzantium (260 B.C.) prescribed a system of three points:

stigme teleia	'final point'	terminus (of paragraph?)
stigme mese	'central point'	pause
hypostigme	'under-point'	brief pause

   However the distinctions in intended use were unclear, and in any event were not followed until the system was espoused five centuries later by Late Latin grammarians. His suggestions for the use of the three Greek accent marks however met with wider acceptance. (Thompson, 1912, as corrected by Ong, 1944.)

6. In fact the first fairly consistent use of points was not to indicate phrasal units as Aristophanes had prescribed for Greek, but rather to segment words in Latin. After the introduction of accented texts in Greek, the issue of word separation became unimportant, since to a large extent the accenting redundantly indicated word boundaries, at least to one whose native language was Greek. But Latin had no similar system, and thus it became usual to point between separate words (Moreau-Marechal, 1968).

7. By the early centuries of the Christian Era the uses of points was capricious and idiosyncratic, with even a particular copyist often not holding to any particular system for the course of a single text (Thompson, 1912, p. 60). Blank spaces came to be used to separate semantic divisions, as did magiscule lettering, a practice which survived to mark paragraphing until quite recently. The convention of beginning a new paragraph on a new line of text was established sporadically by the 7th Century, and of course is still maintained (Moreau-Marechal, 1968, p.62).

8. The prescriptions of Aristophanes of Byzantium were renewed by Dionysus of Thrace (2nd. C. A.D.) and somewhat later made available in Latin by Diomedes:

> Distinctio quid est? Apposito puncto nota sensus vel pendentis mora. Quot locis ponitur? Tribus. Quibus? Summo cum sensum terminat et vocatur finalis a nobis, a Graecis τελεία; medio cum respirandi spatium legendi dat, et dicitur μέση; imo ponitur cum lectionis interruptum tenorem aluid conlatura suspendit et vocatur a Graecis ὑποστίγμῆ a nostris subdistinctio.
>
> 'What is a distinctio? It is by the placement of a point either an indication of a meaning(-unit) or a delay in ongoing speech. In how many positions is it placed? In three. Which ones? In the highest, when it terminates a meaning(-unit), called by us finalis, by the Greeks teleia; in the middle, when it gives a space in the reading for breathing, and is called mese; in the lowest, when it holds up some interrupted course of reading from what is to come, called by the Greeks hypostigme, by us, subdistinctio.
>
> (Keil, 1857, I:437)

9. This system was taken over by the Late Latin grammarians, but not in general by scribes, as noted above. The rationale rested on the twin criteria of meaning(-units?) and the demands of respiration, presumably in the course of oral reading of texts.

Dositheus (4th. C.):

> (Distinctio est...) silentii nota, quae in legendo dat copiam spiritus recipiendi, ne continuatione deficiat.
>
> '(The distinctio is) a mark (indicating) silence which gives a chance to take a breath in reading so it will not give out by prolonging it.'

Excerpta Donatiani Fragmentum (5th. C. ?)

> Distinctio est temporis et sensus finitio.
>
> 'The distinctio is a termination of time and meaning.'
>
> (Keil, 1857, VI:273)

Cassiodorus (6th. C.)

> (...positura)...moderatae pronuntiationes apta repausatio...
>
> '(...punctuation is)...a fitting pause in measured articulation.'
>
> (Keil, 1857, VII:215)

10. An example of the type of accomodation and innovation which individual writers of the period expressed in their own systems is seen in St. Jerome's scriptural translations. He employed the distinctio/subdistinctio system on the basis of how many syllables were in the phrase to be punctuated. The latter was to be used for clauses of less than eight syllables, as he indicated his preface to the Book of Isiah. The reason given was to aid the reader. Jerome clearly indicates his new use of the signs:

> ...sed quod in Demosthene et Tullio solet fieri, ut per colla scribantur et commata, qui utique prosa et non versibus conscripserunt, nos quoque utilitati legentium providentes, interpretationem novam novo scribendi genere distinximus.
>
> '...but since in Demosthenes and Tullius they (= punctuation distinctions) are usually made, and since they wrote in comma and cola even in prose, not (just) in verse, we also, looking towards utility for the readers, distinguish new interpretations (of these marks from poetic use) by a new kind of writing.'
>
> (Preface to Isaiah, PL 28, col. 825; cited in Moreau-Marechal, 1968, p.60)

Thus Jerome modified the Greek metric units comma, cola, and periodos for use in prose.

11. Isidore of Seville (7th. C.) can be credited with an important development. Taking over the comma/cola/periodos classification of units in prose from Jerome, he invested it with semantic

justifications and treated the units as isomorphic to those punctuated by the system of Aristophanes of Byzantium and his Latin interpreters (see 8.).

> De posituris. Positura est figura ad distinguendos sensus per cola et commata et periodos, quae dum ordine suo adponitur, sensum nobis lectionis ostendit... Ubi enim initio pronuntiationis nedum plena pars sensus est et tamen oportet respirare, fit comma, id est particula sensus, punctusque ad imam litteram ponitur et vocatur subdistinctio ab eo quod punctum subtus, id est ad imam litteram accipit. Ubi autem in sequentibus iam sententia sensum praestat fit cola, mediamque litteram puncto notamus, et mediam distinctionem vocamus quia punctum ad mediam litteram ponimus. Ubi vero gradus pronuntiando plenam sententiae clausulam facimus, fit periodus, punctumque ad caput litterae ponimus, et vocatur distinctio, id est disjunctio, qui integram separat sententiam.
>
> 'On pointing. A pointing is a marking to separate meaning into cola, commata, and periodoi, which when placed in accordance with the rules indicates to us the meaning of the reading. Thus, with articulation begun, when there is not yet a complete constituent of meaning and there is nonetheless a need to breathe, let there be a comma, that is a sub-unit of meaning, and a point is placed at the bottom of the letter and is called subdistinctio, because it consists of a point below, i.e., at the bottom of the letter. However when a sententia (cohesive semantic unit?) stands out in the maning, let there be a colon, and we indicate this by a point at the middle of the letter and call it a medio distinctio, since we place the point at the middle of the letter. When by means of the articulation of a "step" (in the discourse) we make full conclusion of the sententia (cohesive semantic unit?), let there be a periodos, and we place a point at the top of the letter and call it a distinctio, that is, a disjunction which separates a complete sententia (cohesive semantic unit?).
>
> (Origines I;20; cited by Moreau-Marechal, 1968. p.58.)

12. As literacy came to be more and more associated with monastic institutions, practical considerations affected punctuation theory. Lectors were required to read texts aloud which, with the vernacularization of Latin, they increasingly little understood. Yet especially in liturgical functions facility was required. The "idealistic" position of Isidore was somewhat eroded. For the first time, there was an association of supra-segmental features with the phrase distinctions. This was systematized by Hildemar, who applied the Greek lexical accenting system to the reading of (presumably Latin) phrases, as they had been distinguished by Isidore. The following is from a letter

written in 813 A.D.:

> Quamvis itaque ars distincte legendi potissimum in posituris consistat, sunt tamen ineruditis lectoribus aliquo modo utiles, quos Donatus enumerat ...Non ergo miremini quod in medio sensu notam acuti accentus fecerim quioniam...his tribus punctis tres aptantur accentus: id est usque ad medium totius sententiae sensum gravis, in medio quoque tantummodo sensu acutus, deindeque usque ad plenum sensum circumflexus.
>
> 'So then the skill of precise (oral) reading depends to the greatest extent on the pointings which Donatus listed, as they are useful to ignorant lectors in one way or another...It is not surprising that I have made an indication of high pitch accent at the middle of a sensus (meaning-unit?), since pitch accent is related to the three points: that is, up to the middle of the sensus (meaning-unit?) of an entire sententia (cohesive semantic passage?) it is a low pitch accent; also to some extent at the middle of the sensus (meaning-unit?) it is a high pitch accent; and finally toward the completion of the sensus (meaning-unit?) it is a falling pitch accent.
>
> (M.G.H. Epistolae Karolini Aevi V:320; cited by Moreau-Marechal, 1968, p.62.)

Hildemar's observations were no doubt prompted by the use of numes and later of entire pointed staves to aid in the pitch realizations of chants. In this latter system, in use by the 11th C., pitch correlated with the relative vertical position of points. Thus the mark for completed semantic unit came to be the low point (as it is today) instead of the high point as previously.

13. The demands of the ineruditi lectores made for further important modifications in the orthographic system. Word separations which had previously been accomplished, when at all, by sporadic pointing which could be confused with phrasal indications now came to be made with blanks. As Moreau-Marechal summarizes.

> Au terme de cette evolution, on sera passe d'un system qui separe les mots par des signes et les unites de sens par des blancs a un system qui separe les mots par des blancs et les unites de sens par des signes.
>
> (1968, p.62.)

14. Thus at the inception of the age of the printing press several different concepts were loosely associated with punctuation, which was in any event now seen as primarily a means of facilitating oral reading. Physiological criteria (the demands of respiration), phonological (pitch, somewhat related to the first) and semantic ones all contributed. In general the paragraph and the clause (e.g. relative clause, subordinate clause, etc.) are the contemporary units with the most direct predecessors.

15. In the 15th and 16th Centuries printing became an industry, and printing houses, eager to achieve as much unity as possible in matters of spelling and punctuation, began to impose the standardization which characterizes English and Continental orthographies today. This was not achieved without considerable struggle. Milton, for example, in Paradise Lost had "various uses of the full stop...It is there used occasionally as a stress mark; ... and... to set out the epic simile distinctively" (Treip, 1970, p. 31). Treip suggests that even when overtaken by blindness Milton went so far as to dictate punctuation to his daughters as they transcribed his speech, only to have much of it revised by printers. The last major hold-out was Daines' Orthoepia Anglicana (1640), which still saw punctuation as an aid in oral rhetorical delivery. Daines even prescribed time-units as pauses to correspond with the different punctuations.

16. Literary style in the 16th and 17th Centuries favored long paragraph-like meaning units somewhat convoluted from the contemporary point of view. Speaking of prose writers of the period, Treip observes:

> "In their oratorical structures, which like Milton's vastly overflow the gramm tical 'sentence', many sentence units are to be found loosely associated... sometimes linked with . , sometimes with : , which latter is almost equivalent to the modern full stop."
>
> (1970, p. 31-32.)

Thus the full-stop had not yet completed its journey to mark the unit it characteristically does today. But even contemporary use is not absolutely consistent in the use of . : and ; or for that matter, the comma.

17. Charles Butler's English Grammar (1634) stated formally what the printers were attempting to do in their standardization, and laid down syntactic principles (rather vague) for determination of clauses and sentences. His approach was accepted, perpetuated and refined by a myriad of English school grammar books in the 17th and 18th Centuries, and was thus inculcated into generation after generation of young pupils, along with other features of supposed "English grammar". These latter have included rather blatant impositions of Classical literary models onto an idealized normative English, and the recent history of how linguistics has sought to disentangle normative prescriptive statements from observational descriptive ones is well known. Perhaps more disentanglement is necessary.

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FINAL REPORT

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DISCOURSE ANALYSIS OF JAPANESE AND THAI

Part II: Japanese Discourse

June 1976

U.S. Department of Health, Education, and Welfare
Office of Education
Institute of International Studies
Division of Foreign Studies

DISCOURSE ANALYSIS OF THAI AND JAPANESE

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Eleanor H. Jorden
and
Robert J. Sukle

(OEC-0-72-1786)

Cornell University
1976

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1. The Data

The corpus used in this research project consisted of approximately fifteen hours of tape-recorded material. Since this material came from various sources, was of various types, and was put to different uses in each case, it was useful to classify it according to the following system. The tapes were divided into seven categories, numbered 100, 200, and so on up to 700. Each tape within a given category was given its own reference number, the first digit of which referred to the category to which it belonged; for example, the six tapes in the 100's category were numbered, 101 through 106. The seven sections that follow give pertinent information about the tapes of each of the categories. For ease of exposition a phrase like T100 will be used to refer to "all the tapes of the category designated by the number 100", whereas T105, for example, will refer only to "tape number 105, which belongs to the category designated by the number 100". Similar reference will be made to the other six categories using parallel notation.

1.1. T100 Series

This series of six tapes was recorded at Cornell University in a sound booth with professional equipment. The tapes vary in length from less than ten to about twenty minutes. All participants were native speakers of Japanese, who had been asked to prepare short informal lectures on particular aspects of life in Japan. The lectures were planned, but not memorized or written out. When a lecture was recorded, the main speaker was accompanied by another native speaker who had not heard the lecture. His function was to listen, comment, and respond to and question the main speaker in a natural manner. Though the main speaker did most of the talking, some listeners contributed a substantial amount to the conversational interplay during the talks.

T106 is of a slightly different type. A native speaker was asked to produce spontaneous, totally unprepared narratives on a variety of topics (for example, initial impressions of American food). The narratives were in most cases only one to three minutes in length. Upon completion of a narrative, the speaker was asked to repeat, as accurately as possible, what she had just said, sometimes three or four times; thus several nearly identical narratives were obtained, the first in each case being unprepared and the succeeding versions being attempted repetitions of the first.

While the T100 tapes have the advantage of being high-quality recordings, they have the disadvantage of having been recorded under artificial and to some extent anxiety-provoking situations, with the result that the type of speech sample provided is undoubtedly of a variety peculiar to such a situation, - i.e. somewhat formal and unrelaxed. However, on the positive side, the T100 tapes represent speech within fairly well-controlled social contexts. In some cases a given person who participated in the making of several tapes can be observed responding to several different people, thus providing examples of interaction of one speaker with various other speakers in well-defined situational contexts.

The T100 series, besides providing additional data for discourse analysis, is useful as advanced pedagogical material. The subject matter is of a type that is of interest to a student studying the language, and the sound quality good enough for the tapes to be used in a language lab. The selections can be used for comprehension practice with a set of questions accompanying each lecture; such questions act as a guide for focusing the attention of the student on the ideas and attitudes expounded in the lecture. The following are examples of possible questions on the lecture on education.

1. What is the speaker's feeling about specialization in American universities?
2. Does the listener share this opinion?
3. In what way, according to the speaker, have Japanese universities suffered by imitating western systems?

The question should in most cases be in Japanese especially if they are used as a basis for starting classroom discussions, but may be in English if used as the basis for interpreting exercises. More specific questions asked by the instructor can follow a replaying of the tape, working on one short section at a time. Such questions check details of comprehension and give the student a chance to practice using specific structures and vocabulary that occur in the lecture.

The tapes accompanied by the transcriptions are useful illustratory material for lectures by a linguist on these features of the Japanese language, which are treated in textbooks or grammars rarely if ever. For example, the student's attention can be directed toward the various possible ways of hesitating in Japanese. The question of how a native speaker of Japanese 'buys time' while trying to think what to say next without losing the floor as a speaker is a question that should be studied by every student of spoken Japanese at more advanced levels. Use of the hesitation devices of the students' own language, while speaking Japanese, gives a distinctly foreign flavor to his speech, however accurate it may otherwise be, and is also often distracting or irritating to a native Japanese listener. On the other hand, a student who uses typical Japanese hesitation devices seems to give native listeners an impression of greater fluency in Japanese since his language is less marked as foreign. There seems to be, on the part of native listeners, a reduced expectancy of, and probably even perception of, errors made by the student who uses appropriate hesitation noises. The T100 series, along with their transcriptions, is useful in pointing out the features of hesitation in Japanese.

This series is also useful in pointing out the devices used in Japanese to indicate agreement with the speaker, to interrupt the speaker, to disagree with the speaker, etc. Comparison of the various texts demonstrates slightly different levels of politeness, depending upon who the speakers are and to whom they are speaking; thus, the student can be made aware of sociolinguistics patterns which are manifest in the narrowly defined context of the T100 series.

Other possibilities of applying this type of material to classroom instruction and to the compilation of a textbook were investigated and will be treated in greater depth in other sections below.

1.2 T200 Series

The T200 tapes were also recorded in a sound booth at Cornell with professional equipment and are therefore of good sound quality; however, the subject matter is experimental in nature, developed specifically for this project. Though it is doubtful that the taped or transcribed material would be useful to other investigators or Japanese teachers as it stands, the techniques of investigation and the motivation behind them are worth mention.

T201 and T202 are recordings of Japanese instructors and several students of Japanese from the Full-year Asian Language Concentration (FALCON) Program at Cornell. The participants were brought to the recording room individually and were asked to tell about a recent class party that all of the participants in the experiment had attended. The result was a series of unprepared, spontaneous narratives in Japanese, all about one actual event, some versions by native speakers and others by students of Japanese as a foreign language. Since all participants had been at the same party, it could be assumed that the narratives would be similar to one another.

This material with the transcriptions was used to discover points of difference and similarity in the way native Japanese introduced information and connected sentences in dicourse, as compared with students of Japanese who were native speakers of English. Such a comparison shed light on points that must be given special consideration in the language classroom if the non-native who can produce grammatical sentences in isolation is to learn to string them together as a native speaker does. This type of error analysis on the discourse level suggested an approach which might be used in the preparation of teaching materials to give the student practice in telling narratives. This led to the preparation of tapes T205-210.

Specifically, T205-210 are tapes of a highly experimental nature recorded in an effort to develop a pedagogical method for eliciting narratives from a student of Japanese at an advanced level. The approach used was to read a set of phrases to an informant who had been instructed to tell a story based on the phrases, immediately after they had been read. The phrases in the order in which they were presented clearly implied a sequence of events and usually resulted in a group of very similar narratives from the various participants. Originally, the phrases used were extracted from actually-occurring Japanese narratives of T106 mentioned above. Each phrase consisted of a time or location expression in isolation or of a verb in citation from plus subject and/or object, direct or indirect, for example. Each phrase then represented a bit of time or locational setting of the narrative from which it was extracted, or else it represented an event or state referred to in the narrative; but since all verbs were given in citation form in the phrases, and since elements such as sentence particles, linking and transitional expressions, and in some cases even grammatical particles were excluded, the set of phrases merely suggested the original narrative, but could not be said to be a narrative. If a narrative is considered as a coherent structure, comparable to the skeleton of an animal, the phrases could be considered as a set of disconnected bones, the term we chose to use during our investigations.

Early experimentation showed that some sets of bones more successfully elicited narratives than did other sets. For example, the bones taken from a narrative on 'arriving in America for the first time' elicited fairly fluent narratives, all of which bore striking similiarity to each other; however, the bones taken from a narrative on 'initial impressions of American food', for example, seemed to confuse the informants, as was evidenced by relatively less fluency in their construction of narratives which bore little resemblance to one another. The varying grades of success were probably due to the semantics and cultural preconceptions involved. The bones of the travel narrative were easily perceived as a coherent whole, because a journey, with arrivals, departures, plane boardings, etc., is a sequence of events of a type that each informant has probably participated in many times. On the other hand, a narrative about impressions of American food lacks this degree of preconceived ordered structure.

In order to suggest to the informants the original structure of a narrative like 'initial impressions of American food', more information had to be included in the bones than was necessary for a travel narrative. However, even when meatier bones were presented, the resulting narratives were relatively diverse and often not recognizable as the 'same story'. Such sets of bones were not suitable for pedagogical use.

Because none of the existing tapes provided exactly the kind of bones desired, sets were developed specially for the experiment. In general the made-up sets elicited more fluent and more natural-sounding narratives, all of which resembled each other closely and all of which were easily recognizable as the 'same story'. Fluency and homogeneity of a group of narratives are important factors if they are to be used for pedagogical material of the type discussed below.

This experimental work with bones suggested a pedagogical model which may be of great assistance in teaching at more advanced levels. A teacher at advanced levels is apt to be confronted by a total lack of instructional material and is almost invariably forced to rely upon reading passages with, at best, questions in the target language about the passages. It is rare for an American student of an Asian language to be able to discuss such reading passages substantively, and therefore direct content, question-answer practice is often the principal speaking practice he gets. Though such practice is beneficial, it fails to provide an opportunity to learn how to construct longer narrative sequences. Teaching material making use of the narratives from the bones principle discussed above, however, would provide a stimulus as well as a set of guidelines for a student to follow in producing a narrative, and guidelines are needed before the student can be expected to produce a narrative from scratch, as for example in response to a question like, 'What do you plan to do after graduation?'

A variety of methods of presenting the bones to the student is possible: two will be suggested here.

The material may be designed for use in the tape lab. In this case, the emphasis would be largely on listening and comprehension since (1) in dealing with longer and more complex stretches of material there is no way to preclude student

answers that are possible but not the one being elicited, as can be done easily in the case of beginning-level substitution, transformation, and response drills, for example; and (2) there is no way to confirm a student's response, since given a three- or four-bone series, a number of possible narratives may be produced. It makes little sense to present one example out of the many possibilities as a confirmation, since the confirmation might differ from an equally correct student response. For this reason, lab work with bones should emphasize listening and only the more controlled aspects of production. For example, the voice on the tape might give a list of three or four bones, followed by a recording of a spontaneous mini-narrative that one native speaker had produced upon hearing the bones. The process might be repeated four or five times and each time the mini-narrative would be produced by a different speaker and therefore would undoubtedly be slightly different.

After this listening section, a production section would follow: here the student hears the bones and mini-narrative 1 as a model, then hears another parallel set of bones and constructs his own narrative exactly according to the model; next, he hears the bones and mini-marrative 2 as a model, and is then given another set of parallel bones from which he constructs his own narrative, again exactly according to the model; and so on. Of course, in later lessons the bones will become more numerous and the narratives consequently longer in each case. Because of obvious limits of memory, the drill procedure described above would have to focus upon only a three- or four-bone stretch of a longer narrative, since the entire narrative would be too long for the student to remember as a model (though he could still profit from listening to the examples of longer narratives that were constructed from the bones if he were not expected to be able to repeat or imitate them in their entirety).

The second method of using bones would be in-class practice. In this case, because the teacher would be present to correct the student's mistakes or to confirm his correct answers, the active practice would not have to be confined to short mimicry drills as proposed in the case of lab use. In class, the teacher could read sets of bones and students could produce their own narrative, having already heard several example narratives for a given set of bones in the lab, and having practiced many possible ways of linking bones. The class material might include several sets of bones not actually found on the tapes though similar to them, thus giving the student a chance to transfer what he has learned to a new situation and at a time when the assistance of the teacher is available.

The experimental work with bones reported above indicated that the type of bones chosen was an important factor in the naturalness of the narratives native speakers produced and the fluency with which they produced them. Yet another important factor must be mentioned: training

of the native speakers. Only after careful guidance and practice can a native speaker - even one with talent - produce narratives in this fashion, which other native speakers cannot distinguish from spontaneous narratives - and of course this should be the ultimate test of the suitability of the material for use in the lab or classroom.

1.3. The T300 Series

The T300 tapes are classified as a distinct group since they have two points in common: (1) they were all recorded at Cornell with a cassette recorder in a room rather than in a sound booth and are therefore not equal in sound quality to T100 and T200; (2) they are all uncontrived and relaxed in style, and in some cases the participants were not aware of being recorded at the time of the recording. T301, 302, and 306 are in Japanese whereas T303, 304, and 305 are in English. The subject matter included the following: (1) a discussion of American and Japanese universities, with a Japanese graduate student in sociology and two Japanese teachers participating; (2) a lengthy conversation between two young Japanese undergraduates, one female and one male; (3) conversation in English among students of the FALCON Program at Cornell, recorded in the home of a student; (4) an argument between two male informants as to the interpretation of a passage in a recorded text.

1.4 The 400 Series

The T400 are classified as a separate group distinguished by two features: (1) they were all recorded at Cornell on cassette recorders under conditions similar to those described for the T300 series, but (2) the procedures used were contrived for a particular effect.

T401-403 are recordings of an experimental nature. Two Japanese instructors for the FALCON Program at Cornell, Mr. O and Ms. T, were asked to tell about six anecdotes to their respective classes of about six students each. The students of each class heard only the anecdotes presented by their own teacher, but both sets of anecdotes were recorded. Next, the students from the two classes met and exchanged their own English versions of the anecdotes they had heard. The students then returned to their own teacher and presented a Japanese version of the anecdotes they had just heard. Finally, the two teachers met and told each other in Japanese the versions of the other's anecdotes they had heard from the students. All encounters were recorded. A process of distortion occurred each time a narrative was repeated, and in some cases the final version bore little resemblance to the original version.

T404 represents different type of experiment. One Japanese instructor was asked to find out from another how to get to a certain point on campus. The second instructor explained until the first understood and then the two were asked to repeat the same encounter several times, each time asking for directions to the same place. The series shows a gradual increase of fluency and decrease of hesitation, faltering and overlays.

1.5. The 500 Series

The T500 are classified as a distinct group because of the following points they have in common: (1) they were recorded in Japan by interviewers for the Japanese National Language Research Institute (Kokuritu-Kokugo-Kenkyuuzyo) and are the property of that institute; (2) they are all interviews with a main speaker and an interviewer; (3) they were all recorded at the home or place of work of the interviewee and are natural and relaxed in tone.

1.6 The 600 Series

The T600 are all recordings made in Japan and taken from Japanese T.V. broadcasts. T601-4 were recorded on reel-to-reel recorders, and T605 was recorded on a cassette recorder. Some tapes are of single programs while others are short samples from a variety of programs.

1.7. The 700 Series

The T700 series is characterized as follows: (1) they were all recorded in Japan; (2) they were recorded with cassette recorders or non-professional reel-to-reel equipment in a variety of indoor and outdoor locations; therefore the sound quality is medium to very poor; (3) most of them are recordings involving groups of people, (usually more than four); (4) in most cases an American was present in the group.

2. Transcription of Taped Material

The following subsections will deal with the transcribing of the data described in section 1. Equipment, personnel, romanization, and typing will be discussed, with attention given to problems encountered and with recommendations for future research.

2.1 Equipment

Some of the taped data was on cassettes and some was on open-reel tapes recorded at 7-1/2 ips or 3-3/4 ips; however, professional facilities were available for making either cassette or reel copies of any master tape. In transcribing from reel-to-reel tapes, Uher open-reel half-track recorders with headsets were used. Some cassette masters were copied onto open-reel tapes at 7-1/2 ips so that they could be played at half-speed on the Uher sets. Half-speed playing was particularly useful for high-pitched female voices since the voice was still comprehensible, but slower and easier to use for correcting errors. For either male or female voices, half-speed playback was particularly useful for short, grunt-like responses of listeners, repetitions, stuttering, faltering or the like, and for paralinguistic features such as slurps, clicks, etc. At normal speed, all such features tend to be automatically edited out by a native speaker transcribing a tape, but they are more noticeable and easier to transcribe at half-speed. In addition, half-speed playback often allows the informant to count the morae of a particularly indistinct stretch of speech and thereby confirm or refute a hypothesis as to what was being said during that stretch. It is usually not possible to count many mora-sequences at normal speaking speed.

While the open-reel recorders with 7-1/2 ips and 3-3/4 ips playback speeds were extremely useful, the bulk of the transcription was done using Wollensak 9557 Cassette recorders with pulsed review, as developed by the Foreign Service Institute (Department of State) and the 3M Company. The 'pulsed review', which is invaluable for transcription work, is a feature added to a cassette recorder permitting instant replay of a short section of tape when a button is pressed. The given portion of tape can be played any number of times simply by repeatedly pressing the review button. This feature allows the informant to listen to difficult passages as often as needed, without having to stop the recorder, rewind and find the desired point on the tape again. Unfortunately, the review button has a tendency to malfunction and frequent repair was necessary.

In addition to the open-reel Uhers and the Wollensaks with pulsed review, a Varispeech recorder (pitch-correcting variable speed recorder) was used. This machine allows the speed of speech to be slowed down to one-half or speeded up to triple without a change in pitch, though at the slow extreme a vibration tends to distort the sound. The device was useful in transcribing tapes but especially in checking completed transcription since it had the advantage of slowing down the rate of speed of the speech stream without changing the frequency of the voice as does half-speed playback on regular machines. Since the prolonged usage of the Varispeech machine caused it to overheat, some master cassettes were copied as they were played at a slow speed on the Varispeech machine by means of jacks running to another recorder. The slow copy could then be used on a regular Wollensak recorder, which was not subject to overheating and which had the additional benefit of the review button, which is lacking in the Varispeech machine.

Machines permitting half-speed playback, recorders with pulsed review, and a varispeech machine were all extremely helpful in transcribing and are highly recommended for future research.

2.2. Personnel

Since a qualified, full-time Japanese native-speaker could not be found for the project, several part-time Japanese were used instead. The total number of informants hired was eleven. There were obvious problems related to the hiring of such a large number of part-time employees - i.e. the additional administrative work, the added amount of training required, and the difficulty of keeping the transcriptions and notational devices of so many people consistent and uniform. There were additional problems with working schedules, since most of the informants were students at Cornell and had to fit their working hours into an academic schedule.

On the other hand, there were many clear advantages to hiring several part-time informants as opposed to a single, full-time one. Throughout the course of the project it was necessary to elicit reactions of native Japanese speakers to various data and several informants were accordingly always available for this purpose. When linguistic judgments are impressionistic, it is essential to determine whether or not they are idiosyncratic, and the constant availability of a number of native speakers was useful.

It is also advantageous to have several informants available for the checking of textual transcriptions. Even with tapes of good sound quality there is invariably disagreement among native informants as to what the speaker on the tape actually said. Only after discussion among several informants was it possible, in many instances, to arrive at a decision as to the accurate transcription of certain passages.

Among the eleven informants six were female and five male. This also proved to be advantageous since both sexes were adequately represented for checking linguistic features involving differentiation by sex. It was also useful for the recording of material to be used as data.

The informants and their work were supervised by a graduate student research assistant in Japanese linguistics who coordinated schedules, recording, and transcription.

2.3. Romanization

The Bloch-Jorden romanized orthography was used for transcription of the tapes, except that accent was not noted and the phonome /n̄/ was written without the bar except in cases where ambiguity would result if the bar were omitted (i.e. when /n̄/ is followed by /y/ or a vowel without an intervening word-space). The phonemes /g/ and /ḡ/, representing a dialectal distinction were both written alike, without a bar; the bar was omitted because informants are not accustomed to making this distinction orthographically, so their attempts to do so are of a questionable validity. It seemed preferable to ignore the distinction rather than to note it incorrectly. Accent distinctions were not noted for similar reasons.[1]

Features of intonation and juncture were marked with symbols /./, /,/, and /?/ as described in Jorden (1962 and 1963), with the addition of the symbol /-/, indicating an abrupt break in the speech stream (occurring, for example, when a speaker falters).

Word divisions were made according to the scheme outlined in Jorden (1955) and put into practice in Jorden (1962 and 1963). Though there is no tradition of word division in Japanese orthography, a consistent division is highly desirable in that it increases legibility of transcriptions for English-speakers by signalling a good deal of syntactic information. However, it is extremely difficult to train native informants to indicate word boundaries consistently, since the method of division requires a fair amount of linguistic sophistocation. Since almost none of the informants learned to make the proper divisions consistently, all transcriptions were rechecked by a research assistant who was a graduate student in linguistics.

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[1] Subsequent to the original work on this project, sociolinguistic studies involving the /g/∽/ḡ/ distinction and accent have been done at Cornell, using the tapes in the collection for this project.

In the representation of loanwords, the syllables [ti], [ɸo], and [ʧe] are written in kana as テ, フ, and チ, respectively, with each initial symbol representing its consonant value only, followed by the vowel represented by the reduced symbol. The given kana sequences are transliterated as t(e)i, h(u)o, and t(i)e, respectively, where the consonant plus vowel-in-parenthesis as a group represents the initial kana symbol and the following vowel represents the reduced kana symbol. This same system is used for other similar syllables found only in loan words. Japanese informants have little difficulty in learning this system rapidly because it so closely parallels the native orthography with which they are familiar.

2.4 Problems Encountered in Transcription

2.4.1. Validity of Transcriptions

Anyone who has ever tried to transcribe data from tapes realizes the difficulties that exist even with tapes of the best possible sound quality. Although tapes of material that has been read in a deliberate reading pronunciation style may yield identical transcriptions when transcribed by several different transcribers, tapes of spontaneous, unedited speech are invariably transcribed differently depending on the individual transcriber even if the tapes are of excellent sound quality. In natural speech, the marked and often rapid changes in pitch, intensity, tempo and precision of articulation make it extremely difficult for a transcriber to catch low points, fast asides, and minimally articulated stretches. In addition, paralinguistic features, such as whispering and laughing, as well as performance factors, such as stuttering, repeating and hesitating, complicate the signal and decrease the probability of identical transcriptions from multiple transcribers. When the tape is of less than optimum quality, the points at which different transcribers diverge in their transcriptions multiply. On the basis of comparison of various transcriptions, it will sometimes be possible to reach a unanimous decision as to which alternative is correct; but in some cases, the data on the given portion of the tape must be considered irretrievable. In all cases, the transcriptions must be viewed as only having at best a probability of accuracy.

2.4.2. Multiple Speakers

The difficulty of transcription increases with the inclusion of more casual speech, faster speech, and tapes of poorer sound quality, as mentioned above. Another factor that adds to the difficulty is any increase in the number of speakers. When several people are talking simultaneously, all are difficult to hear on tape, especially on monophonic tape, which was used for the project. In addition, it is often impossible to discern who is speaking although the speech itself may be clear enough.

In transcribing conversations, it is necessary to indicate who is speaking and whether participants' speech overlaps. The devices used for the present project were as follows: (1) each speaker was given a letter symbol, eg. A, B, C, which appeared at the beginning of every new utterance of that speaker; (2) a dotted line running from midway in one participant's speech to a lower line marked with another speaker-

identifyfng letter indicated overlapping speech by two participants; thus:

C: ——————————————————————————————

B: ——————————————————————————————

(3) in cases where postiive speaker identification in overlapping speech was impossible in a conversation among more than two people, x was used to designate the speaker; (4) supportive responses ('uh huh', 'yeah', 'oh?', etc.) by one speaker during speech by another were interspersed appropriately within the longer utterance in parentheses.

The treatment of multiple voices outlined above was sometimes confusing to read and was extremely difficult to type. It is suggested therefore that in future projects the problem be handled differently. Ideally, there should be a designated line reserved for each speaker, throughout the conversation, whether he is speaking at a given moment or not. For three speakers, there would be three lines, and these would be single-spaced, forming a kind of 'stanza'. The spacing between stanzas would be double to show clearly the distinction between line and stanza. A dotted line would indicate silence of a speaker; thus given a stanza of three lines, two of which consisted of rows of dots and one of which was romanization, it would be immediately obvious that only one person was talking and which speaker it was. Furthermore, a supportive response occurring even in the middle of a word being uttered by another speaker could be printed at the exactly appropriate point in the text.

2.4.3. Suprasegmentals and Paralinguistic Features

The most desirable transcription for the present project would have included not only segmental phonological units but also suprasegmentals such as accent, juncture and duration, as well as paralinguistic markings for increases and decreases in tempo, loudness, tenseness of articulation, etc. However, the marking of such features would have required so much input by linguistically sophisticated personnel as to have significantly curtailed the amount of data that could be transcribed within the time frame of the project. It was therefore decided to ignore these features in the transcriptions and to concentrate instead on transcribing a greater quantity of data. Given transcriptions of data in this form and the accompanying tapes, a trained investigator can mark whatever features are of particular interest to him.[1]

The general inability of informants to note suprasegmental and paralinguistic features became particularly clear when they were initially asked to indicate vowel lengthening as a feature of hesitation in Japanese. The length was to be indicated as follows:

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[1]Since the completion of this project, such research and specialized investigation have already been undertaken at Cornell University with the subject material.

okane 'money' (standard)
okane/e/ 'money' (lengthened)

tookyoo 'Tokyo' (standard)
too/o/kyoo 'Tokyo' (lengthened)

Surprisingly enough, the transcribers tended to indicate only predictable lengthening at clause terminals and to ignore hesitation lengthening in other positions. As the project continued, the marking of hesitation lengthening was abandoned.

The slanted bar symbols continued to be used, however, to enclose any material other than added vowel length, which was interpreted by the transcriber to be a mere hesitation signal.

The following are some examples of this type of item: (1) kono, sono, ano, pronounced with low-level pitch and with or without lengthening of the final vowel; (2) interjections such as maa, saa, etc; (3) various vocoid qualities, usually of considerable length, pronounced on a level pitch: ee, nn̄, oo, aa; (4) paralinguistic sounds consisting of (a) a voiceless lateral plus ingression of air, represented as plh and (b) a voiceless dento-alveolar click, represented as ts.

In addition to the slanted bars, parentheses were used, to enclose, in stage-direction fashion, indications of accompanying features such as laugh, cough, clear throat, and so on.

2.4.4. Lenition and Contraction

In colloquial Japanese, it is common to pronounce certain sequences with varying degrees of lenition, the extreme of which often results in contraction. The present project attempted to indicate such pronunciations in the transcriptions by spelling them out with the sequence of phonemes that actually occurred. This was a satisfactory solution in the case of contracted sequences that are normally so spelled in Japanese orthography. Thus, in the case of sore + wa = sorya, the kana representation of sorya frequently occurs in Japanese writing and its romanized equivalent is also familiar to most students of Japanese. A form like sore + wa = sora is also familiar; but the intermediate variety sore + wa = sore a is not seen in Japanese script or in romanization and is therefore confusing, adding to the general difficulty of interpreting the complex transcriptions. Many such contracted pronunciations could probably be more effectively represented by the full, unreduced form with slashes cancelling out appropriate letters. Thus: sore a would be written sore /w/a. A sequence like asuko n kaeru would be represented as asuko n/ kaeru, subject to the rule that nasal plus vowel becomes /n̄/ if the vowel is deleted. This rule can be extended to r plus vowel, as in tabete n̄, derived from tabete /ru/. This kind of designation would be clearer and less cumbersome than the notation with gloss for clarity used in the present project: tabete n̄ [i.e. tabete iru].

2.4.5. Other Suprasegmental Features

There are several other types of suprasegmental cues that should ideally be noted in transcriptions of this type. In unedited, spontaneous discourse, rapid increases or decreases of tempo, sudden and extreme changes of pitch, and abrupt fluctuations in loudness seem to form a system of signals which cues the listener in on the functional status of certain stretches of speech. These signals convey meanings such as 'cancel out what I just said and replace it with the following' or 'this passage is a quotation of another speaker', or 'this passage is an amplification of what I was saying' or 'at this point I am returning to what I was saying'.

With the newly-acquired acoustic phonetics laboratory of the Department of Modern Languages and Linguistics at Cornell, objective measurement of the physical parameters of such signals will be possible and a system of phonemic symbols can be developed to annotate the signals. Since such analysis has not yet been carried out, the transcriptions lack this information which is of the kind controlled by a native listener out of consciousness.

2.4.6. English Loanwords

Loanwords from any foreign language into Japanese can present special problems, but problems were especially noticeable in reference to English loanwords since several of the speakers on the tapes were speakers of English as a second language. Consequently, not only did large numbers of loanwords appear in their conversation, but these loanwords often stood in contrast phonologically to the native Japanese matrix. Sometimes the contrast could be handled in terms of Bloch's (1950) 'innovative dialect', in which a new phonemic contrast or phonemic distribution was manifested in the loans; at other times, the phonology of the loanwords could hardly be described with reference to the phonological system of Japanese at all, but would be more readily described with reference to the phonological system of English. For example, sometimes the characteristic (C)V pattern of equal-length Japanese morae was replaced by the pattern of English stressed vs. unstressed, reduced syllables. When this extreme end of the continuum (and it does seem to be a continuum) was reached, the loanwords in question were written with traditional English spelling. Since a sequence of traditional English orthographic symbols may at times coincide with a possible arrangement of Japanese phonemes, a loanword of this type was underlined as well, to indicate that the symbols were to be read as an English word rather than as a sequence of Japanese phonemes.

2.5. Typing of Manuscript Transcriptions

Since only two of the informants were able to type with any efficiency, the bulk of the transcriptions were written out by hand. The two informants who typed turned out rough-draft typed copies of their transcriptions with corrections and additions written in by hand. These drafts were then typed on A B Dick Spirit Master stencils by the project typist.

The fact that the typist did not know any Japanese created some problems, particularly since she was using hand-written manuscripts. However, a Japanese informant was usually close at hand to assist with any material that was illegible.

Final typed stencils were proof-read for typographical errors, corrected or retyped, and then duplicated and filed. While this was a very inexpensive form of duplication, it presented serious difficulty in the amount of time and effort required for making corrections. Since expense is always a factor to be considered, photocopying and other similar methods would not be feasible when multiple copies are needed. A practical alternative would be to type the texts on bond paper and correct any errors with correction fluid, thereby producing one correct typed copy. One photocopy of the corrected page could then be used to produce a Thermofax stencil, which, in turn, could be the basis for multiple copies. This procedure, while somewhat more expensive would probably result in no increase in terms of overall costs because of the significantly reduced time required for correction.

3. The Organization of the Project

The project was originally visualized as a two-year project with the first year devoted to collection and transcription of data and some basic research on discourse structure, and the second year devoted to compilation of a textbook for advanced-level language teaching using materials drawn from the first year of the project. Unfortunately the second year could not be financed.

3.1. The Seminars

During the '72-'73 academic year two seminars were held in conjunction with the first stage of the project. One was a seminar in discourse analysis offered by Professor R. B. Jones, with Professor Eleanor H. Jorden also participating. Three graduate students were enrolled, one of whom was the research assistant for the Thai branch of the project and another the research assistant for the Japanese branch. The second seminar was offered by Professor Jorden and dealt with the subject of developing new methods and new types of materials for teaching Asian languages at advanced levels, specific attention being directed toward Thai, Japanese, and Chinese. Professors R. B. Jones and John McCoy as well as graduate students (including the two research assistants mentioned above and a teaching assistant for the Chinese Full-year Asian Language Concentration (FALCON) Program) participated in the seminar. These two seminars will henceforth be referred to as the Discourse Seminar and the Pedagogy Seminar, respectively.

3.2. The FALCON Program

The summer of 1972 also marked the beginning of Cornell's Full-year Asian Language Concentration (FALCON) Program. During its first year, Thai, Mandarin Chinese, and Japanese were included, all taught intensively, six hours per day for the entire calendar year, starting at the beginning level. There were two drill sections each of Japanese and Mandarin and one of Thai. The Thai program was headed by Professor

R. B. Jones, the Japanese program by Professor Eleanor H. Jorden, and the Mandarin program by Professor John McCoy. Each professor had a graduate student assistant to help with the supervision of the program. In the case of the Japanese and Thai programs, the assistants also served as research assistants for the discourse analysis project.

The day-to-day operation of the FALCON Program is not relevant here except that the classes in the program were used to test out pedagogical theories discussed in the Pedagogy Seminar; also, points of discourse structure which were discovered in the Discourse Seminar also were incorporated in the material given to the classes. Furthermore, the type of Japanese or Thai discourse the students produced in speaking these languages as foreign languages could be compared to that of native speakers of these languages in order to detect differences in discourse structure. Thus, the FALCON Program and the Discourse Project were mutually reinforcing: while the Discourse Project provided the FALCON Program with teaching material, the FALCON Program provided the Discourse Project with additional data and experimental subjects.

3.3. The Pedagogy Seminar

The Pedagogy Seminar began with an examination of advanced-level language courses at Cornell. Many are the so-called 'bulk' languages - French, Spanish, Russian, German, Italian. Since these are European languages related genetically to English, it may be expected that the problems encountered in teaching them and the solutions for these problems differ significantly from those related to the teaching of Asian languages. It was found that the material used for advanced-level courses in these languages consisted mainly of collections of reading passages. There were sometimes questions for each reading passage and/or grammar exercises with practice in writing isolated sentences or filling in blanks with the correct form of a given word. Supplementary readings were also included in some texts.

This sort of approach to advanced-level language teaching was attacked in the seminar for two main reasons: (1) the main focus of the approach was on reading to the exclusion of speaking, thus depriving the students of needed advanced-level speaking practice of the type that would eventually lead to automatic mastery of the grammar; (2) even if readings were in dialog form, these were inevitably highly contrived, thus depriving the students of any opportunity to be exposed to, and to analyze spontaneous, unedited speech that actually occurs among native speakers. Members of the pedagogy seminar investigated various ways in which these two failings could be corrected by the development of more sophisticated materials. Some of the suggestions proposed, and the experiments that resulted from them, were discussed above.

4. Research Projects in Discourse Analysis of Japanese

In conjunction with the discourse seminar, two topics were investigated by Robert Sukle, Cornell graduate student associated with the project, one involving terms of reference in Japanese and the second, particles; each topic will be discussed separately.

4.1 A study of kosoadogo

The following terms of reference will henceforth be referred to as kosoadogo (i.e., ko-, so-, a-, and do- words).

k-series	s-series	a-series	d-series
kore 'this one'	sore 'that way'	are 'yonder one'	dore 'which one (of 3 or more)?'
kono 'this ---'	sono 'that ---'	ano 'yonder ---'	dono 'which ---?'
konna 'this kind of ----'	sonna 'that kind of ----'	anna 'yon kind of ----'	donna 'which kind of ----?'
kotira 'this direction or alternative'	sotira 'that direction or alternative'	atira 'yon direction or alternative'	dotira 'which direction?' or 'which alternative (of 2)?'
kotti 'this direction or alternative'	sotti 'that direction or alternative'	atti 'yon direction or alternative'	dotti 'which direction?' or 'which alternative (of 2)?'

The above set of terms minus the d-series terms will be referred to as kosoago.

A study involving kosoago was carried out using the Tokuinten 'Special Drinking Shop' text (no. 501 described above) as data. In a mimeographed, romanized copy of this text, all kosoago were deleted, using a black marker, and the points of deletion were numbered consecutively. In the entire text there were 334 blacked-out items. Six informants were given answer sheets with numbered blanks running up to number 334, corresponding to the blacked-out items in the text. All occurrences of kosoago in the text had been blacked out, including those occurrences of kono, sono, and ano which had occurred as hesitation forms in the original dialogue. Contractions consisting of kosoago plus particle wa, such as sora and korya were also deleted, the particle wa being written in on the questionnaire after the blacked-out numbered space.

The six informants were instructed to read over the romanized text and to write on their answer sheet for each numbered space one of the fifteen kosoago included in the above list. They were also told that some of the spaces represented kosoago used as hesitation forms, and they were asked to fill in these too. Finally, the informants were instructed to put an 'x' on their answer sheet for a given blank if they felt that none of the fifteen possibilities seemed appropriate in that blank, even as a hesitation form.

In most cases the choice presented to the informants was merely a horizontal choice among the s, k, or a-series rather than among the various terms within such a series, since the structural environment in most cases precluded more than one or two of the choices. In nearly

every case, if a given term of a vertical series is possible in a given slot, the parallel terms of the other two vertical series are also possible structurally, though they may not be possible semantically, given the discourse context. Nevertheless, one point of ambiguity leading to multiple possibilities for answers was the possibility of interpreting a given item either as a hesitation device or else as a constituent of a grammatical construction (in the usual sense of the phrase 'grammatical construction').

To avoid ambiguity in the following exposition, the terms series and type are differentiated. A set of kosoago all members of which begin with the same phoneme (s, k, or a being the possible choices) is said to be constituted of terms of the same series. That is, the terms in the same verticle column in the chart of kosoadogo given above are described as same with respect to series. Two kosoago terms which differ with respect to the phonemic shape of their initial syllable are, on the other hand, said to be of the same type if they are found in the same horizontal row of terms in the kosoadogo chart. If two terms are the same with respect to type as well as series, they are said to be the same term.

The responses of the six different native Japanese informants in filling the 334 blanks give some indication of the extent of agreement among native speakers in the usage of kosoago when there is a nearly complete context. The qualification 'nearly complete' is necessary since the blacked-out spaces occurred on the printed page and thus the context as presented to the informants lacked such critical aural cues as intonation and voice quality and also lacked important visually-derived information such as the physical setting in which the original discourse occurred and appearance of the speakers including kinesics. In presenting the questionnaires to the informants, if there were a method available to systematically provide some or all of these missing cues, greater agreement among informants might well result. The degree and nature of the agreement found within the present study however is of considerable interest.

Out of the 334 blanks in the questionnaire only twenty items showed unanimous agreement in the sense that the six informants and the original all used the same term for these items. For four additional items there was unanimous agreement except that at least one informant in each of these four cases gave two alternate responses (contrary to instructions) and one of these responses in each case was not the same series and/or type as the other informants' answers. For example, for item #89, the six informants and the original all used the term soo, but informant number six also write koo as another possibility in addition to soo. In such cases the informants did not indicate which of the two possibilities, if either, they preferred.

Exhibiting a slightly lower degree of aggreement were thirteen items in which all informants and the original used the same series but differed as to type in at least one of the answers. Six items in this group of thirteen involved the -no -nna distinction: for example, some responses showed koro while others showed konna. Other cases were more complicated: in item #144, for example, the original used soko, five

informants used sore, and one informant used sonna. Although there was agreement as to series here, the wide variety of type was made possible partly by the fact that the particle ni followed the blacked-out space #144 and partly by the fact that following the ni was the item yappari 'after all', an item used repeatedly by the speaker as a signal of breaking the speech stream and starting over. To this group of thirteen items, could be added another four items which exhibited again only slightly less agreement: all responses for a given item in this group of four items were of the same series though at least one response differed as to type, as in the case of the group of thirteen items; however, the four items differed from the thirteen in that at least one informant gave an alternate response for each item (contrary to instructions) and the alternate response differed as to series from the other answers given for that item. As an example, item #100 had sore in the original, sono from four informants, and soo from the other two. Therefore, there was agreement as to series. However, informant #6 listed kono as well as sono as a possiblity and to this extent showed lack of agreement as to series.

The 41 items discussed up to this point constitute about 12.2% of the total of 334 items, and represent the area of greatest agreement in the sense outlined for each group above; that is, for these 42 items there was practically unanimous agreement as to series.

The least amount of agreement as to series, on the other hand, was represented by cases in which all three series appeared as responses for an item. The degree of agreement can be even less in cases in which each of the three series appeared at least once as the only possibility rather than as an alternate possibility in an informant's response. There were 81 items out of the 334 - i.e., 24.4% - that exhibited this minimal degree of series agreement, as compared with 12.2% for items exhibiting maximal agreement in the sense discussed above.

The remaining 212 items, or 63.4%, fell in between the two extremes in that for these items (1) members of two series or one series and one or more 'x' responses appeared as possibilities among the informants' responses and (2) each of the two series that was represented for a given item appeared at least once as an informant's only response, and not just as an alternate response. Included in this group are items for which two different series and the response 'x' were represented, as well as items for which one series and the response 'x' occurred. If three different series and the response 'x' were represented, the item qualified for the category of minimal agreement discussed above.

The foregoing discussion indicates that there is actually a relatively low degree of agreement among informants as to choice of kosoago series, at least given the manner in which the questionnaire was presented. It may be the case, as was suggested earlier, that another manner of presentation, such as a tape recording with kosoago edited out and replaced by a buzz, would yield a higher degree of agreement since more aural cues would be present in such a case. Nevertheless, it must be stressed that there were some points of total agreement among the informants, though the usage even at such points cannot safely be called obligatory. The reason for this point of caution becomes obvious when

we note that there were many items for which the responses of five informants unanimously agreed with the original but for which the sixth informant's response differed; therefore, it is quite possible that the relatively few cases of unanimous agreement would cease to be unanimous if a seventh informant's responses were elicited.

Though it is not appropriate to speak of obligatory usage of the various series of kosoago, it is possible to discern strong trends or tendencies in usage that have statistical significance. For example, among the group of 212 items exhibiting a medium level of agreement, 40 had all responses in agreement as to series except for informant(s) who responded with 'x'. The other 172 items of this group included members of two series in the responses (with 84 of these items including, in addition, one or more 'x' responses). However, even though the informants didn't furnish the same responses, certain kinds of disagreement are much more common than others: among these 172 items showing two series in the responses, 133 items showed s-series and k-series, 37 items showed s-series and a-series, and only 2 items showed k-series and a-series. Such figures seem to indicate a significant range of contexts in which either the s- or the k-series may occur, a markedly lesser range of those in which the s- and a-series may occur, and an almost total lack of contexts in which both the k- and a-series are judged acceptable.

Within the areas of overlap, there is room for choice; and given an environment where two choices are possbile, some speakers tend characteristically to move in one direction and others in the alternate direction. The figures in the table below indicate distribution according to individual informants.

Participant	S-series	K-series	A-series	X	Total
informant 1	210	63	6	55	334
" 2	202	92	27	13	334
" 3	184	64	61	25	334
" 4	200	124	10	--	334
" 5	119	54	70	91	334
" 6	148	93	4	89	334
original text	219	97	18	--	334

As can be seen from the table, the s-series was by far the most common; in fact, the number of s-series terms used by each participant is greater than his k-series plus his a-series responses combined in every case except for informant #5. Nevertheless, the number of s-series responses varied considerably from informant to informant, running from a low of 119 to a high of 219. The k-series range runs from a low of 54 to a high of 124, and the a-series from 6 to 70. This wide variation is possibly due partly - but certainly not entirely - to the role played by the 'x' response; for example, informant #4, avoiding the x-response totally, rather closely approximated in his answers the distribution of k-, s-, and a-series terms in the original text. However, this correlation must be interpreted with caution, since informant #5 relied the most heavily on 'x' responses but also used the greatest number of a-series responses. Obviously, the number of responses of any one series is not necessarily inversely related to the number of 'x' responses in a given informant's total set of responses.

As may be expected from the rather wide range in the number of 'x' responses given by an individual informant (0-91), there was not a very high degree of agreement among the informants as to which items would be answered with 'x'. 69 of the 273 x's occurred as the only x-response for that item. There were 52 items for which two x-responses occurred and only 7 items for which 4 x-responses occurred. There were no items for which five or six x-responses occurred - in other words no example of unanimous agreement. This result is not particularly surprising since the informants were asked to rely on x only as a last resort, in cases where they felt that all of the kosoago sounded unnatural, even as a hesitation device. It was expected that some of the informants would be puzzled by the items that represented hesitation in the original, since the average native speaker is very rarely consciously aware of the structure of unedited spontaneous speech, which almost never appears in print. Some of the informants, however, had had experience in transcribing tapes of unedited speech and therefore could be expected to be more sophisticated in dealing with items representing hesitation devices in the present study.

The foregoing treatment of the study of kosoago represents only initial research. A future, more delimited project will provide informants at the outset with the type of the deleted items, asking them to indicate only their preference as to series. This will be a simpler procedure for the native speaker and will provide useful data of a highly specified nature.

4.2 A Study of Particles

4.2.1 Methodology

The study on particles was again based upon the Tokuinten 'Special Drinking Shop' text (no. 501, described above). This time the text was rewritten in Japanese orthography - a measure judged advisable in order to facilitate reading by informants who were not accustomed to reading romanized Japanese. Reading fluency was judged important since an effort was being made to elicit the informants' most natural, spontaneous responses and the labored reading of romanization could lead to a less spontaneous, more calculating and intellectual approach to the questionnaire.

In rewriting the text, the Japanese informants assigned to the task used the mixture of kanzi and kana that would ordinarily be used in writing. All false starts and hesitation devices were written in katakana. Since the written language does not reflect changes in tempo, intonation contours, voice quality and other such features that facilitate the listener's understanding of unedited discourse, a large number of punctuation marks were added to the version in Japanese orthography in order to facilitate understanding, though these marks did not correspond in a rigidly systematic fashion to features of intonation, tempo, change, etc.

In rewriting the text on Japanese orthography, the particles under study were omitted, with absolutely no indication as to where these particles had occurred. The purpose of this study was to investigate

not only which particles occurred in a given environment, but also which environments were judged as appropriate environments for a particle.

The particles that were omitted in the rewriting of the text can be divided into two classes, termed respectively, grammatical particles and discourse particles. The former class includes the particles ga (subject marker), o (object marker and area marker), wa (referent marker), and mo (marker for 'additionalness'); the latter class included na, naa, ne, nee, sa, yo, and da nee[1].

The informants were asked to read over the prepared text and to insert any one of the omitted particles at any position in the text where they thought it would sound natural. They were given a list of the particles that had been omitted and were asked to use only members of that set or sequences thereof. In spite of these instructions, there were still some responses turned in by the informants which included items other than those listed; such responses were, however, few and therefore insignificant.

In reply to the question whether as many particles as possible or as few as possible should be used, the informants were told that if they felt that a given section of the text would sound more natural - i.e. more like actual speech - provided a particular particle or particles were added, only then should they add it/them. In all cases, 'naturalness' was to be judged in terms of how much the text sounded like actual speech rather than how closely it approximated 'grammatically correct' writing as taught in prescriptive language classes in school. The informants were urged to read their responses aloud while trying to imagine the passage actually being spoken. Since many of the informants who participated had had occasion to hear sections of the tape from which the transcribed text had been taken, they already had some familiarity with general tone, mood, and pace of the conversation as well as with the character, education level, and degree of formality of the speaker. Informants who were extremely familiar with the tape, such as those who actually helped to transcribe it originally, were not included in this study, however, since it was feared that in inserting particles they might rely upon their memory of the actual original text rather than upon their linguistic judgements. The study, of course, was not concerned with what the original had been but rather with what the range of possibilities is, given the textual framework as a constant.

The informant responses were tabulated in the following manner: on a mimeo copy of the original text, each point in the Japanese text where at least one informant had inserted a particle on his answer sheet was marked with a number in square brackets. In many cases, a position so marked coincided in the original text with a particle that had been inserted on the informants' sheets, but in other cases, no particle had occurred in that position in the original version. In the

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[1]This da nee is analysed as distinct from the copula da plus the particle nee since (1) unlike the latter sequence the da is not replaceable by other forms of the copula, such as datta, and (2) the sequence in not replaceable by da alone.

Japanese text, then, if square brackets occur under one of the particles being treated in this study, it is understood that the particle above the square-bracketed number occurred in the original and that one or more informants also added some particle, though not necessarily the same one, to their response sheets in that same position. On the other hand, when square brackets occur under the space between two words in the Japanese text, it is understood that one or more informants inserted a particle (not necessarily the same one for each informant) into the space between the given two words on their answer sheets, even though the original text did not have a particle in that position. There were, of course, many other cases where one particle of the group of particles under study occurred in the original, but where the Japanese-English text with numbered tabulation shows no square-bracketed number under that particle. This means that no informant inserted a particle of any kind in that position, even though one had occurred in the original text.

Accompanying this text with numbered tabulation of position of informants' responses is a complete list showing exactly what sort of responses occurred in each numbered position. Since twelve informants filled out response sheets, these informants were numbered from one to twelve for purposes of simple notation in indicating which informants responded in each instance. As there were 1215 positions in the text where particles were inserted by at least one informant, the list of items for informant responses runs from number 1 to number 1215. Note that this number includes only positions where at least one informant inserted a particle, regardless of where the particles occurred in the original text; this means that excluded from the 1215 positions are positions where a particle occurred only in the original text but not on any informant response sheet.

The list of informant responses is organized in the following fashion: A number to the left of a response corresponds to the square-bracketed number of a position in the Japanese text. To the left of this number on the response sheet is a list of all the responses that occurred in the specified position. If some particle(s) occurred in that position in the original text, that particle (or sequence) is typed in upper-case letters at the top of the list next to the position number. This information is given in the list mainly for convenience sake and for quick and easy comparison. The absence of a particle in upper-case letters indicates that no particle occurs in that position in the original text. Under the particle(s) in upper-case letters (if any) is listed the set of all particles that appeared in the specified position on the informant response sheets. If more than one particle (or particle sequence) occurs, they are listed on the master sheet in the order representing frequency, with the particle choice that occurred most frequently first. All particles listed as having been inserted by informants are typed in lower-case letters; particle(s) may be typed into the list in lower-case letters, therefore, even if the same particle(s) occur at the head of the list in upper-case letters.

To the right of each particle listed as an informant response is a number identifying which informant used the particle in question in the specified position. It is therefore possible to trace the response pattern of a single informant throughout the text.

The organization of the master response list may be summarized by means of the following example:

584. (W)A
wa (1, 4, 7, 9, 12)
ga (3, 6)
ne (10)
nee (11)

Interpretation: At the position in the original Japanese text marked by the number 584 in square brackets, the particle wa occurred in the original text. (The parentheses around the w indicate that the particle actually occurred in its contracted form a.) Informants #1, 4, 7, 9, and 12 all inserted wa into this same position on their answer sheets; informants #3 and 6 inserted ga here, whereas informant #10 inserted ne and informant #11 inserted nee. Since wa was the most frequent response, it was listed first.

There are a few cases in which informants used responses they had not been asked to use; these responses are recorded along with the others on the master response list.

As asterisk appears preceding a position number on the master response list when all twelve informants inserted the same particle that had occurred in the original text; that is, the asterisk marks position numbers where there was unanimous agreement.

4.2.2 Extent of Agreement in Responding

One of the most surprising results of the study was an extremely strong indication that most particles included in the study are usually optional, given a printed discourse context; almost never in any sense are they obligatory. Out of the 1215 positions in the text into which at least one informant inserted a particle (henceforth insertion positions, abbreviated IP), there were only 27 in which all informants as well as the original did so. Furthermore, in 15 out of these 27 IP's, the twelve informants did not agree on which particle was most appropriate; they agreed only in their unanimous feeling that something was needed at that point. In only 12 IP's, then, was there unanimous agreement in the sense that all twelve informants as well as the original speaker used the same particle.

It is not a foregone conclusion that one can speak of obligatory particle usage even in these 12 positions, however, since there were a fair number of IP's where the original speaker and eleven of the informants all used the same particle, but one informant used a different one. An IP of this type would have been put in the unanimous category if the study had, by chance, been carried out with an informant group reduced by one and if the excluded informant had, by chance, been the dissenting one. In other words, there is no way of knowing whether the agreement would have still been unanimous in these 12 IP's if the study had been based on data supplied by a larger group of informants. It is therefore preferable to speak in terms of probability of a given particle occurring in a given position in a given discourse environment. While

there may be multiple choices in a given position that are clearly unacceptable, it is more difficult to talk in terms of any one particle that is indisputably correct, though there may be an extremely high probability that one specific particle would occur in a given environment.

A closer examination of the 15 IP's where all informants and the original each used a particle, though not the same one reveals that seven of these positions showed agreement that ga or wa was needed, but disagreement as to which of the two was appropriate. Three of the 15 showed disagreement between ga and o, and one between ga and mo. The remaining five positions of this group of 15 were more complicated. The range of responses for these five is:

1. mo, ga, ne
2. ga, wa, ni wa, mo
3. mo, ga, de
4. o, wa, ne, yo
5. wa, ga, de

As can be seen from the above list, some informants felt the need to use particles other than members of the designated set (for example, ni and de).

The data obtained in the case of these 15 positions is typical of what was found in abundance throughout the study: in many positions, a majority of the informants felt a need to insert a particle, and propose, as a group, only one or two possibilities. Positions eliciting complete, unanimous agreement were, however, extremely rare.

It is worth noting that the 12 positions which did show unanimous agreement on the same particle all involved grammatical particles rather than discourse particles. In seven cases all were agreed on ga, in three cases on wa, and in one case each on mo and o. This suggests that the factors governing the occurrence of grammatical particles, more than of discourse particles, are apt to become obvious on the printed page, since they are largely structural and semantic factors. The factors governing the occurrence of the discourse particles, on the other hand, are less apt to be discernible on the printed page, since they involve such things as identity of speaker and hearer, rate of speed of speech, level of animation of speech, judgement by the speaker as to how well the hearer is understanding, etc. Such information is generally impossible to preceive from a printed text.

4.2.3 A Specific Type of Disagreement: ga versus o.

Among the 1215 IP's, there were 40 into which both ga and o were inserted. These provided an interesting subject for more detailed study since the difference between ga and o is more than simply a difference in emphasis and/or focus as is the difference for example between wa versus other possibilities such as ga, o, or ϕ (no particle). These 40 cases were therefore examined in an effort to discover what sort of factors on the discourse level permitted these two markedly different choices. The 40 cases were subdivided into classes according to the type of factor that made the dual choice possible and each class

will be treated separately.

(1) Syntactic Ambiguity

Seventeen of the 40 items for which both ga and o were listed as possibilities occurred in sequences which actually permitted interpretation of the given item either as a 'subject' or as an 'object'.

For example:

oya	ga/o	motaemasu	yoo na ko	na n da tte
parent(s)		find unmanageable	kind-of-child	is case being even

If ga occurs, oya becomes the 'subject' of moteamasu and the phrase may be glossed 'even if it is a child of the kind that parents find unmanageable'. If o occurs, oya becomes the object of moteamasu and the phrase would then be glossed 'even if it is a child of the kind to whom the parents are a nuisance.' Though both of these are possible meanings, the latter one seems a bit bizarre in view of information already provided in the text; nevertheless it was the choice of a native speaker.

Within this category were also examples which permitted interpretation of the given item as a 'subject' of one predicate, or the 'object' of another. The verb iu 'say', 'be called' occurred in these examples. Thus:

atama	no	teedo	ga/o	sukosi	hutuu	no	hito	yori	mo	izyoo
head		level		a little	ordinary		person	more-than		abnormal

da	to	iu	baai	ni	wa
is		say	case		

If ga occurs after teedo 'level', the phrase atama no teedo 'mentality', 'intellectual level' is interpreted as subject of the nominal-plus-copula predicate izyoo da 'is abnormal'. In this case the entire phrase may be glossed, 'in cases where the intellectual level is a little less normal (lit: more abnormal) than (that of) ordinary people'. If, on the other hand, o occurs in the same position, the phrase atama no teedo 'intellectual level' is interpreted as object of the verb iu 'say', 'be called', and the Japanese sequence is comparable to English "in cases where (they) describe (her) intellectual level as less normal (lit: more abnormal) than (that of) an ordinary person".

(2) Alternate Particles with Potential Verbs.

A second type of sequence in which both ga and o were supplied by informants involves verbs carrying the morpheme of potentiality. Traditionally, Japanese potentials - even those derived from transitive verbs - have been intransitive, but there is increasing use of transitive-based potentials as transitive. Among the 40 examples under examination here, there were five cases in which both o and ga were supplied to mark the 'logical object' of potential verbs. An informant's choice in such situations may reflect sociological variables such as age, sex, education, social class, etc., but available data was not sufficient to arrive at any conclusions on this point.

(3) Ambiguity Involving Amplification

It must be remembered that the informants were working with a transcription of an unedited text. In spontaneous, unedited speech, amplification (i.e. further explanation of a previous item) and correction (of a previous item) are common. Sometimes amplification serves to emphasize an item; sometimes it has the sole function of providing a means of stalling while the speaker thinksof what to say next without yielding the floor to another speaker; but probably most commonly, amplification provides the listener with a more precise indication of the speaker's intent, while correction cancels out a previous utterance. In speech, such features as intonation, voice quality and tempo signal the fact that an item is serving one of these functions, but in a written text, the absence of such signals may make a passage ambiguous. An item may be interpreted as an amplification or correction, or it may be interpreted as a functionally distinct part of the sequence. (For example, the first item may be understood as subject and the second as object, or the first as referent and the second as subject.) Such types of interpretation are likely when particles are unexpressed. This phenomenon may account for five of the 40 examples treated in this section. The following is an example:

sono	warui	bubun	ga/o	moo		tuyoku	kono	kanzyooteki	ni	sono
that	bad	part		already		strongly	uh	emotionally		uh

ma	mono	o	maziete	takabutte	kite
uh	thing		adding-in	having come to be all worked up	

If ga occurs, the phrase sono warui bubun 'the bad part' is interpreted as subject of takabutte kite 'having come to be all worked up'. In this case, the phrase can be glossed as "the sick part, with things added in, having already come to be strongly uh - emotionally worked up". However, if o occurs, the phrase sono warui bubun becomes object of maziete 'mixing in', and mono o 'things (object)' is interpreted as an amplification of this object. In this case, the sequence can be glossed as 'with the bad part - uh - things added in, (it) already has come to be strongly - uh - emotionally worked up'.

In cases such as this, since there is usually one interpretation that seems much more likely, it is often difficult to understand why some informants chose the particle indicating the more bizarre interpretation. However if one keeps in mind the fact that some of the informants were puzzling a printed version of a convoluted, meandering discourse that they had never heard, it is understandable. Most important is the fact that such an interpretation did occur to a native informant, indicating that such an interpretation is therefore a possible one.

(4) Hesitation Intervention

In the text, the following phrase occurred:

rikai-siu		ma	si-ii	yoo	ni
understanding		-uh-	easy to do	way	in

'In a way that is eas - uh easy to understand.'

Both ga and o were inserted after rikai. The informant later questioned about this usage preferred using no particle at all but said that ga was perfectly acceptable. However, o was also permissable, given the hesitation filler that occurred between the o-marked phrase and the corrected predicate si-ii 'be easy to do'.

The implications of this kind of acceptability are highly significant in discourse. A sequence which would be unanimously rejected by native speakers as "wrong", "non-occurring", "bad Japanese", etc. may in fact become acceptable through the addition of correction devices (signalled by intonation, pitch, tempo, etc.) and hesitation devices. There are pedagogical implications for the foreign language learner as well. While there may be characteristically differentiated native versus non-native lapses - i.e. 'mistakes' - in speech, the foreigner who has mastered the correction devices has a much better chance of producing acceptable Japanese in spite of errors that would not be expected of a native speaker. Control of these devices is a significant part of language competence and should be included in the language learner's repertoire at an early stage of his training.

4.2.4 Alternatives Related to Transitivity

The remaining items in the group of 40 under discussion here seem to relate to verb transitivity, i.e. the choice of ga ~ o being in some cases different from standard usage. The informant who was later questioned suggested that one of the alternatives selected by the native speaker in each case could be explained only if it was assumed that for some speakers the verbs in question had the opposite marking for transitivity from that of the standard language; however, she expressed difficulty in accepting the likelihood of her own suggestion. The verbs that occurred in the items of this category included the following:

kooosoku-suru	'bind'
sikomu	'educate'
(humoñ ni) husuru	'ignore'
soreru	'drift'
arawareru	'show up'
kakeru	'lack'
agaru	'rise'
sareru	'be done'
tiryoo-suru	'treat'

The case of the verb agaru 'rise' may possibly be attributable to orthographic confusion. The verb agaru 'rise' is usually written with one kanzi representing (phonemically) aga-, and one kana symbol, representing (phonemically) -ru. The transitive counterpart of this verb, ageru 'raise' is usually written with the same kanzi but in this case the kanzi represents (phonemically) only the a- , whereas the -ge- and -ru are each written with separate kana symbols. Because of the great number of government-prescribed changes in kana spelling in recent years, it might be possible that conflicting usages caused the informant who inserted o for this item to have read the written symbols as ageru rather than as agaru. The informant who was questioned later rejected this explanation, since according to her, the orthographic tradition on

this point has been stable. However, inasmuch as the informant was able to offer no other explanation for the particle choice, perhaps the possibility of orthographic confusion should not be excluded, especially in the case of a less well educated informant.

If it is not true that there are speakers for whom the verbs listed above have transitivity markings opposite from those of the standard language, then the only remaining explanation seems to be that in some cases informants did not interpret the noun phrases in question as being in grammatical construction with a following verb at all, but rather read the given sequence to themselves in such a way that suprasegmental cues signaled a break in the speech stream, and either the noun phrase in question was an aside or an amplification, or else a sudden change of subject was seen as occurring directly after the noun phrase in question. If the informants had been provided the added context of the suprasegmentals of the original conversation, it is likely that responses would have been more narrowly specified.

4.2.5 Comparison of Original with Average for Informants.

The total number of occurrences of the particles under investigation in the original text was 850. In contrast, the total number occurring in the informants' response sheets was 4919, or an average of 409 per informant - less than half of the number found in the original. The table below shows the distribution of these occurrences into the categories of grammatical particle and discourse particle.

	Grammatical particles	Discourse particles
Original	493 (58%)	357 (42%)
Average for informants	289 (71%)	121 (29%)

The table shows that not only did the informants in general use fewer particles than the original but also that there was a significant difference in how the occurrences were distributed. However, it is not surprising that the particles associated primarily with spontaneous, spoken discourse should be strikingly less frequent in a written version of the discourse.

Breaking these figures down further for the grammatical particles, the informants used on the average only 58.6% as many grammatical particles as the original, but the distribution among the four particles wa, ga, o and mo was strikingly similar, as the following table shows:

	wa	ga	o	mo
Original	195 (39.6%)	130 (26.4%)	81 (16.4%)	87 (17.6%)
Average for informants	110 (37.9%)	81 (27.9%)	63 (21.7%)	36 (12.4%)

As is seen from the table, both the original speaker and the informants showed the greatest need for wa and the second greatest need for ga. Though it is dangerous to draw statistically significant patterns from a small amount of data, the above figures seem to indicate that the most

frequent type of discourse ambiguity which can be resolved by specification of grammatical particle is noun phrase as subject versus noun phrase as referent. This statistical frequency may explain the prevalent tendency even (or perhaps especially) among native Japanese linguists to constantly refer to the ga-wa distinction, as if wa were a variant of ga having slightly different nuances of meaning. In actual fact, of course, the grammatical distribution of wa differs greatly from that of ga, and is rather nearly identical with that of mo. The problem should therefore be looked at as a choice between the pair wa and mo on the one hand, and ga, o, or no particle at all on the other hand.

4.3 Implications for Pedagogy

The pedagogical implications of the foregoing studies are considerable. They provide strong evidence of the fallacy of a foreign language teaching methodology that leads students to think in terms of THE correct, acceptable utterance within a given context. Even with only the limited data provided by the above studies, one must challenge the fill-in-the-blank-with-the-correct-answer kind of approach to language learning. This is not to suggest excessive permissiveness in accepting student utterances. What is required is to expose students systematically to actually occurring patterns along with an accurate interpretation of the information conveyed by those patterns and examples of typical contexts where they may occur. As the repertoire of patterns increases, contrastive information should be included: for example, in a given context x, how does sequence A differ from a semantically similar sequence B? What should be avoided is an approach suggesting to the student that there are predictive rules that can lead to THE correct answer, given the context. There is a difference between linguistic unacceptability and unpredictability. One must always remember that in reply to the question "What do you think of the present international situation?", even "Excuse me, I think your wastepaper basket is on fire" is, if not a commonly occurring follow-up, a thoroughly acceptable one.

5. General Results and Conclusions.

The transcriptions that were prepared, edited, and duplicated under the subject contract are furnishing data for continuing research into Japanese discourse as well as sociolinguistic investigations. Papers on supportive responses, intonation, /g/~/ḡ/ alternation, and formal vs. informal stylistic variation have already been written on the basis of the subject data, in addition to the studies included above. Much remains to be analysed. In particular, further work is needed in the area of units of discourse, where our preliminary analysis yielded interesting results. Observation of natural discourse raised a serious question as to the identification of the traditional unit known as the sentence. While such a unit is undoubtedly recognizable in the written language and prepared, formal discourse, spontaneous speech seems rather to be divided into discourse phrases which are distinct from traditional sentences, and which are bounded by pause and/or open juncture and/or one of a finite set of lexical items that function specifically as discourse phrase markers. These include hesitation devices and interjections among others. Such discourse markers often signal the start of explanatory material (i.e., amplification), summation, or correction of previous

material, or a new start following the abandonment of a previous theme, and the omission of a discourse marker occurring medially within a sequence can result in a non-occurring sequence. This is one explanation for the fact that transcriptions of natural speech which do not include any indication of hesitation devices are often incomprehensible even to native speakers.

Discourse phrases may also be marked by a variation in speed of utterance, pitch range, or loudness. As was pointed out above, further analysis of these features and their meaning, together with the development of appropriate symbolization, are required. As an example of this category, the so-called 'inverted sentences' of Japanese might be more accurately analysed as examples of the pattern of amplification, signalled by a shift to a lower pitch range immediately following an intonation traditionally identified as occurring in sentence final position. Thus, the sequence Ikimasu yo↓ Kyooto e 'I'm going! - to Kyōto', formerly analysed as the inverted equivalent of Kyooto e ikimasu yo↓ would be analysed as two discourse phrases, ikimasu yo↓ and kyooto e, the latter characterized by reduced pitch following low-rising intonation /↓/ (which most commonly occurs in utterance-final position), and indicating that the phrase is providing add-on information for purposes of clarification.

Further research into discourse phrase structure and the identification of discourse markers should obviously be undertaken next with comparison across languages. The research in Japanese and Thai completed thus far has clearly demonstrated that discourse is not composed of sequences of well-formed sentences, but rather of units bounded by frequent hesitation devices, exclamations, and various fillers. It is marked by constantly-recurring editing devices that signal correction, amplification, false starts, and the like, thereby making aural comprehension easier since there is constant and immediate adjustment to the listener. Interestingly enough, the listener reacts to the discourse signals unconsciously for the most part, screening them out of awareness, but he automatically assumes that any continuing speech lacking such signals is being read or that it has been memorized.